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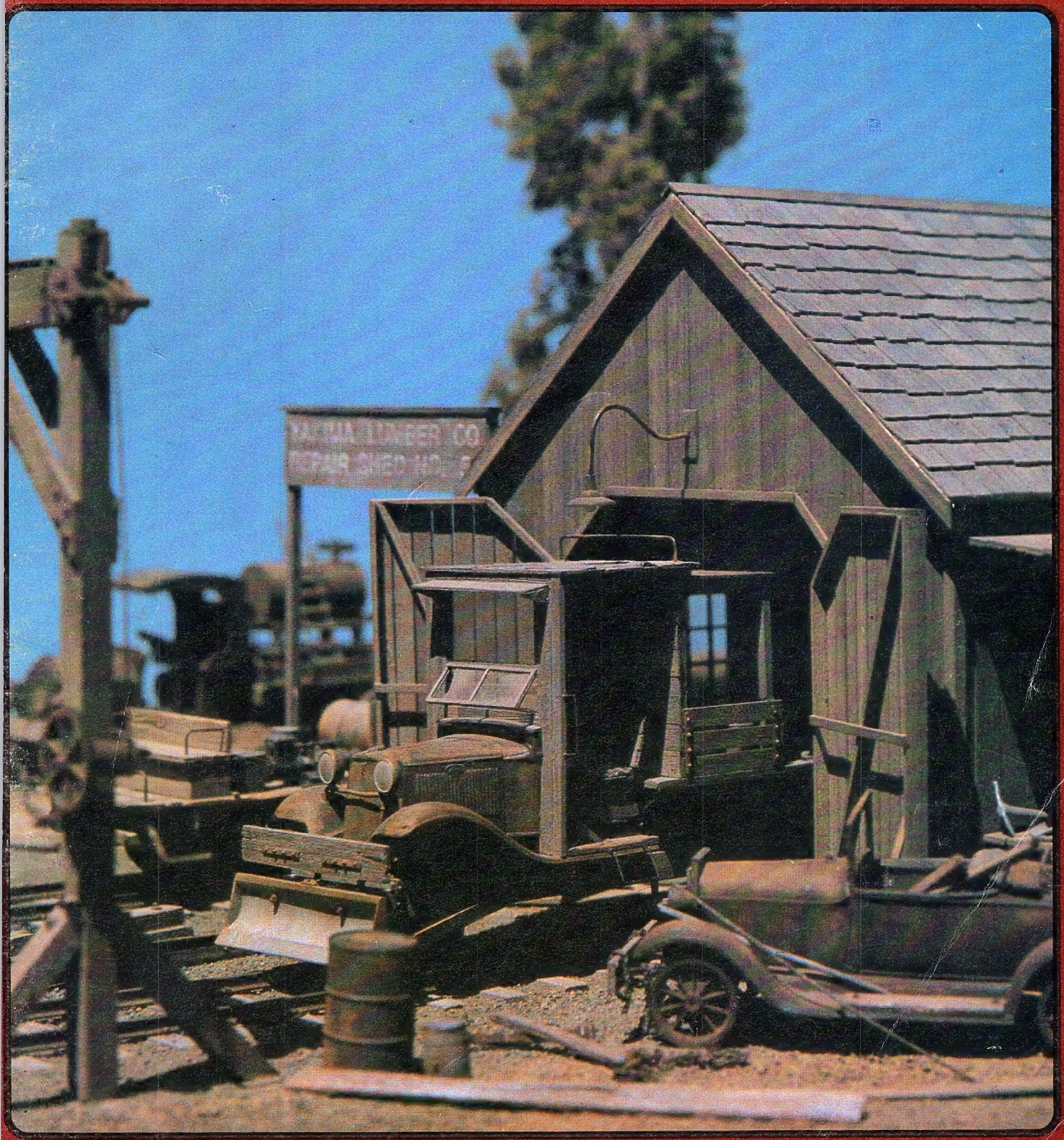

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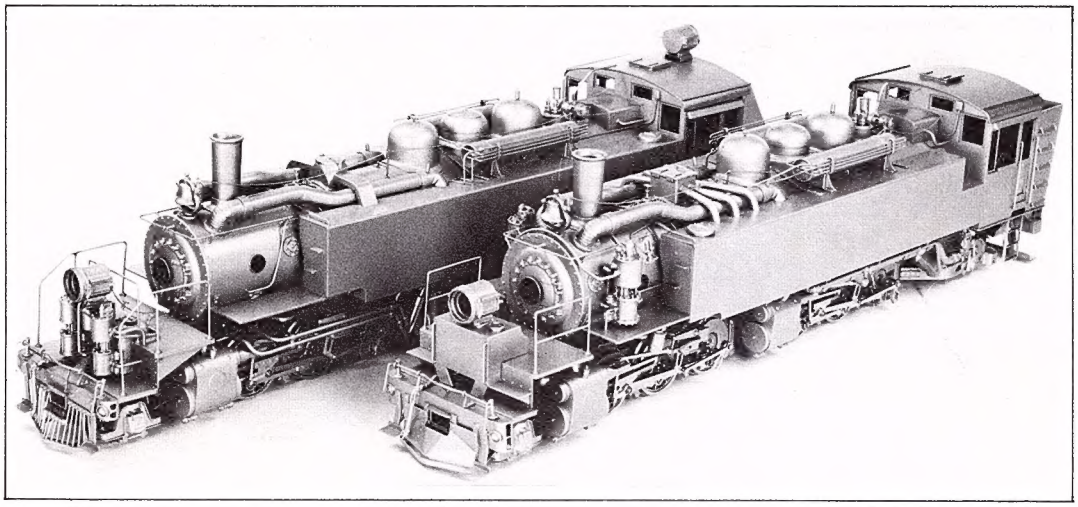

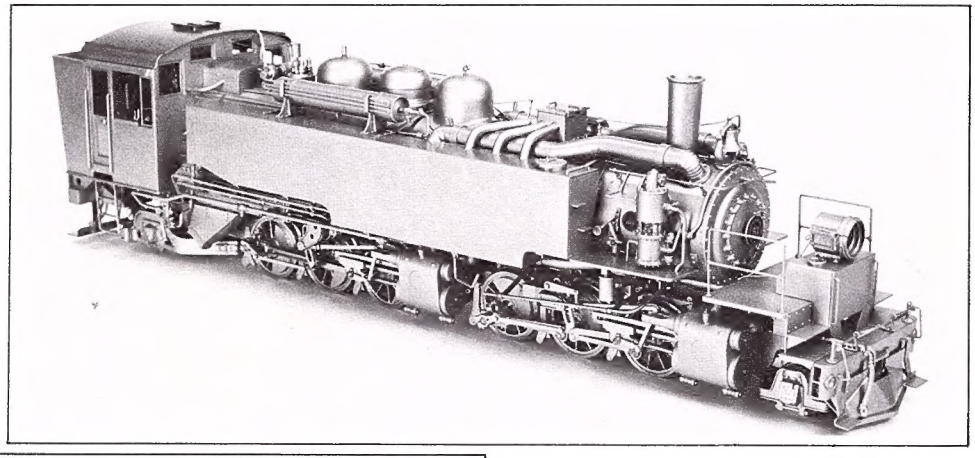

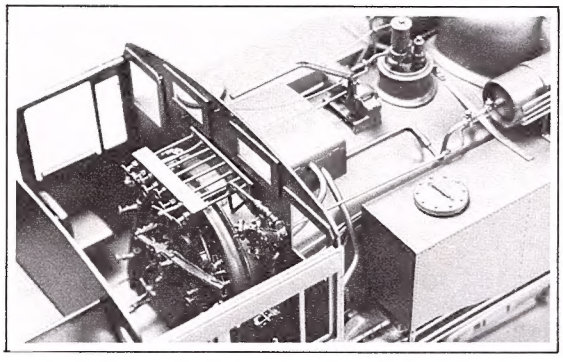

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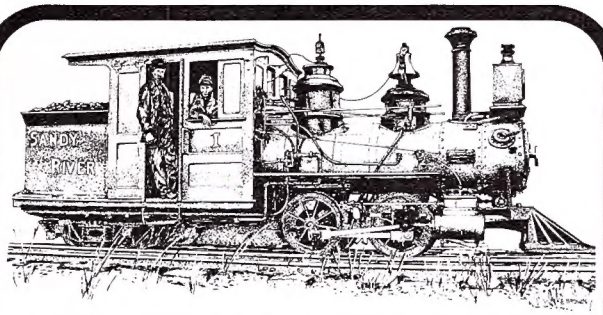
Jul/Aug 1979 Volume 5 No.3

(ISSN 0148-2122)



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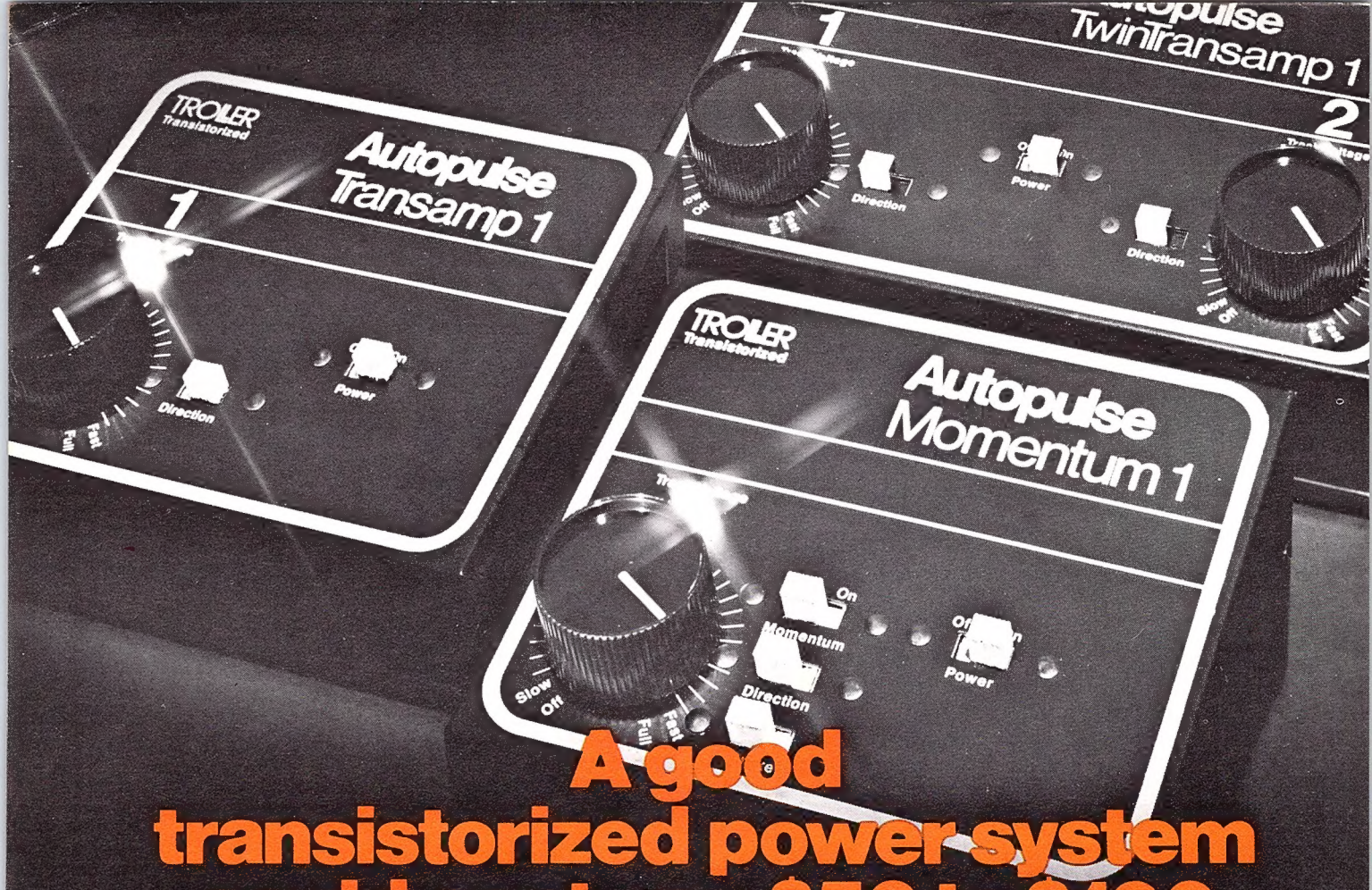
COVER

The marvelous weathering achieved by Gary Nash is shown in this color photograph. Note how subtle the coloring is. Turn to page 44 to see how Gary built this beautiful model.



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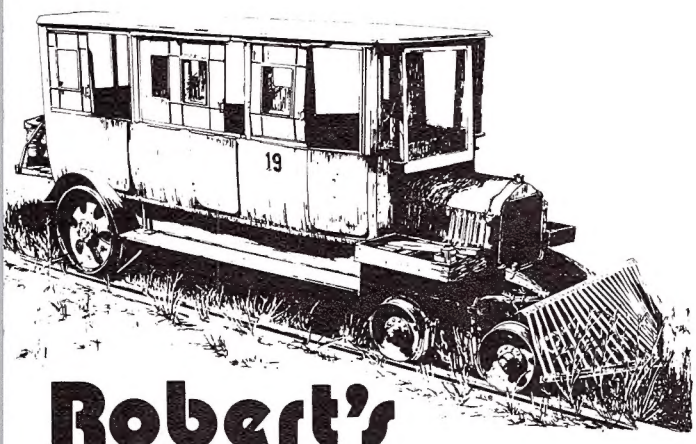


Robert's Ramblings....

Many of you know that I have been searching for the narrow gauge models of the late Hugh G. Boutell for several years. In a recent **GAZETTE** I mentioned my search and a reader wrote mentioning that a fellow down the road had the models. A quick letter brought back an equally quick phone call. Mr. John Gay of Idaho Falls, Idaho had the bulk of the models in his garage. John generously offered the models to me if I would promise to repair them and see that they were available for viewing. So Irene and I took off in our van for a four day whirlwind trip to Idaho Falls where I picked up the models and had an enjoyable visit with John, his wife, their children and their pack of hounds. I now have two of the early electric locomotives, almost all of the later day cars and most of the structures from Mr. Boutell's last layout in Santa Barbara, California. I plan to write more about these early examples of hand-made narrow gauge models in the **GAZETTE**. For now I want to say thanks to John and get back to refurbishing the collection.

Hugh Boutell was known for his little live steam models which were built to 17/64 inch scale and ran on ⅝ inch gauge track. I would like to find as many of these models as possible. I will give a free life-time subscription to the **GAZETTE** to anyone who locates any of these little steamers or any other of Mr. Boutell's models.

I am sure all of you saw the beautiful article by Gordon North in the June 1979 **MODEL RAILROADER**. Gordon is our resident sound expert and an avid **GAZETTE** supporter. I am delighted to see his fine model railroad shown in so much detail and with so much color. As I have already told Gordon his models bring a dignity to On30 that is long overdue. If you are looking for a scratch builders gauge where conversions from HO models are possible then look closely at Gordon's article.

I recently received a letter from Craig Brown, 7511 Murdoch Ave., Shrewsbury, MO 63119 about the possibility of a national narrow gauge meet. As Craig points out in his letter, the S gaugers, O gaugers and traction modelers all have national meets so why not the narrow gaugers? Craig has asked the **GAZETTE** to help him gather some information. How about taking a few moments to send answers to the following questions to *Craig at his home address?*

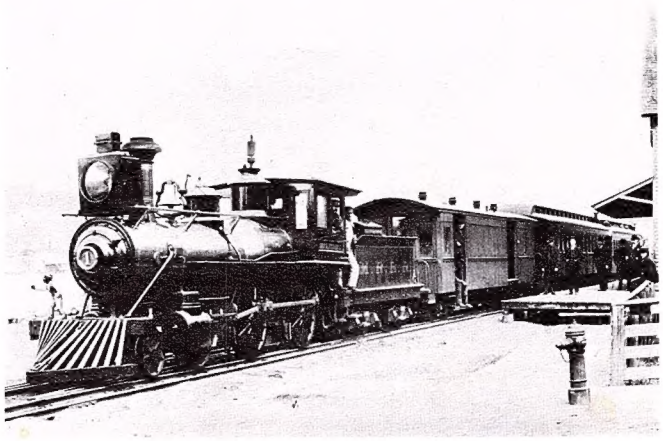
1. Would you attend a National Narrow Gauge meet?
2. Which of the following activities would you like to see or not like to see?
   a. Layout tours
   b. Model contest, model display or both? If contest, judged by vote of attendees or judges?
   c. Clinics and would you be willing to give a clinic and on what subject?
   d. Movies and slide sessions?
   e. Bull sessions?
   f. Auction, silent and/or live?
   g. Swap session, limited to non-dealers or open to all?
   h. Banquet? Craig leans away from a banquet since it adds about $15.00 to the cost.
   i. Any other activities?
   j. Would this be a modelers only or would you bring your family and should some program be provided for them?

Craig is thinking that it would be late 1980 at the earliest or possibly 1981 before such a meet might be held.

Reader Richard D. Rautio, 1245 Pursell Ave., Dayton, OH 45420 has asked for help in finding out where the Porter locomotive in the photo shown in this month's Rambling came from and where it went. Dick has the following information on the locomotive.

It belonged to the Mineral Range RR as their 2nd #1, "Jay A. Hubbell". It was a 36 inch gauge 4-4-0 built by Porter in the early to mid 1880's. It was received by the MR in November 1880 and was sold in October 1901 to a Chicago (dealer?) from whence it was to be taken to the Delaware & Hudson Railroad where some narrow gauge locomotives were used. Dick is working on a book about Porter and wants to know where this loco came from and where it went.

Mineral Range 2nd #1 "Jay A. Hubbell" at Houghton, Mich. c. 1890? Built by H.K. Porter & Co. in early 1880's. *Photo, collection of Harry Reeder.*



My appologies to Dave Newcomb for failing to credit him for the color cover photo and the interior color photo in the May/June issue.

Bob Brown

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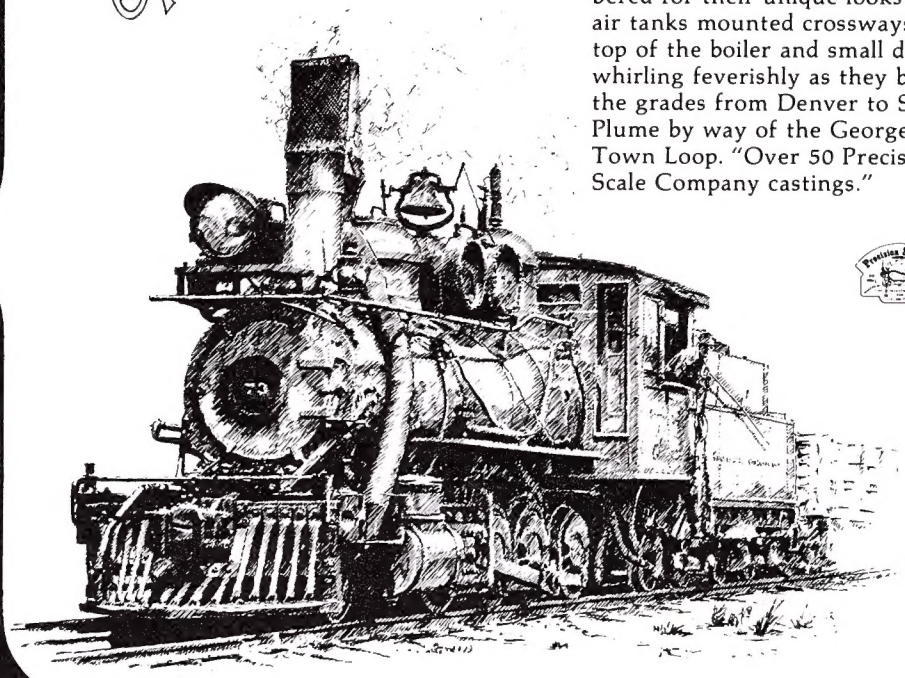

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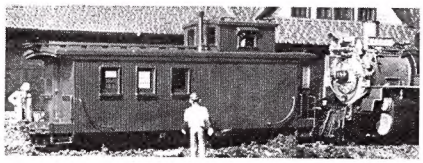
UPDATE

We now can offer you a complete line of kits and parts for your modeling pleasure. Listed below are the items available at your favorite hobby shop. All are HO scale:



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#4003 Narrow gauge caboose sides.	$4.00/pair
#4004 Ladders.	$2.00/pair
#4005 Single side window cupola.	$3.50
#4006 Double side window cupola.	$3.50
#4007 Narrow gauge caboose ends.	$4.00
#4008 Underbody detail set.	$1.75
#1576 HOn3 3'7" caboose trucks.	$3.50/pair
#1577 HOn3 3'7" freight trucks.	$3.50/pair
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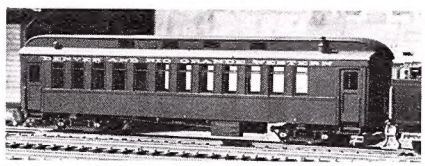
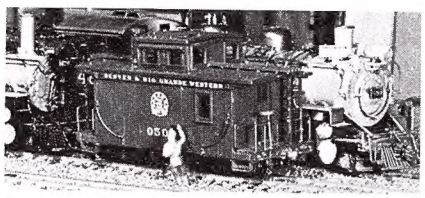
Trucks above include plastic wheels and axles.

#1579 HOn2½ freight trucks (for Kadee wheels).	$4.00/pair
#3000 25 feet of truss rod (.012").	$1.45



Our second HOn3 plastic kit, also with trucks and couplers — D&RGW coach #319, open or closed vestibule. $18.95, either version.



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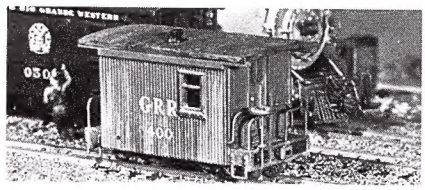

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The Pigeon Hole

Dear Sir:

Knowing that you are looking for any information about the East Broad Top, I had found two Articles of the E.B.T. that were not on your list in the Mar/Apr 1979 issue of **GAZETTE.**

The first article is in the August 1978 issue of **RAILROAD MODELER** magazine. The name of the article is "An Orbisonian Ode," and was written by Stephen Boothroyd. It is 10 pages long and has quite a few photographs, including some color shots.

The second article I found is about Steve Riddlebaugh's Black River Railroad in HOn30". It is in the April 1979 issue of **RAILROAD MODEL CRAFTSMAN.**

Although the article is not about the E.B.T., it does make quite a few references to it. I thought I would mention it on the chance that it might have some information of value.

I hope that these two articles have some use for your references.

Sincerely
David R. Nealson
Belmont, CA

Dear Sir:

Of the forty-five mallets built by Baldwin for logging purposes, only three were built as true saddle tank Mallets, that is, the saddle tank wrapped over the boiler in a continuous "U" shape. One of these Mallets, the sole survivor of the three, is now on display at the Puget Sound Historical Museum near Snoqualmie, Washington.

It is one month to the day, when on a Saturday evening, February third, in San Rafael, I was lying in bed reading the Jan/Feb **GAZETTE**, and having that information engraved on my brain.

Imagine my shock and trauma when the very next morning, I crossed the bridge to Richmond, and there at Point Molate on the Castro Point Railroad, operating under full steam, I saw... No, No, It couldn't be... But it is... it is...

And then my cooler nature took control. I took a deep breath and realized the true nature of what I was seeing. The **GAZETTE**, of course, would not lie to me, so what I was seeing must be an illusion. Yes, of course, that was it. And yet an illusion so palpable that it not only responded to the five normal senses, but to photographic film as well. One of the reject proofs is enclosed for your perusal.

Wheeze, puff, chug, toot,
Jack Warford
Woodland Hills, CA

Dear Sir:

In regards to your "East Broad Top" issue, several notes:

1) Both the overhead crane and the grading/washing plant (formerly) located at Mount Union, Pa. were cut for scrap during the last week of March, 1979.

2) In your list of E.B.T. plans you deleted: 1) a plan for a tunnel watchmans shanty which appeared in (pshaw!) **FINELINES** volume 8 number 6 (3/72). 2) a plan(s) for gas electric M-1 available through Coronado Scale Models.

3) In the Mt. Union yard (or remains thereof) there is/was the charred remains of a box/house car. It appears these timbers are the remains of an early E.B.T. car, i.e. wood frame. No trucks, but some hardware remain. It offers a unique albeit incomplete glimpse of the road's pre-steel car past. If you are interested I will forward the dimensions and/or photos.

4) Lastly due to the E.B.T.'s proximity to the crippled nuclear power station at 3 Mile Island, Pa. there stands a chance that the E.B.T. may be the only narrow-gauge that glows in the dark (feeble attempt at humor).

Yours,
Stephen Hornik
Alexandria, VA

Dear Sir:

An E.B.T. article that was not on your "Roberts Ramblings" list:

"Short Line Railroader", a series of monthly booklets, #46, Sept 1960 featured E.B.T., 8 pages 8½" x 11" with pictures. William S. Young. Published by Starrucca Valley Publications.

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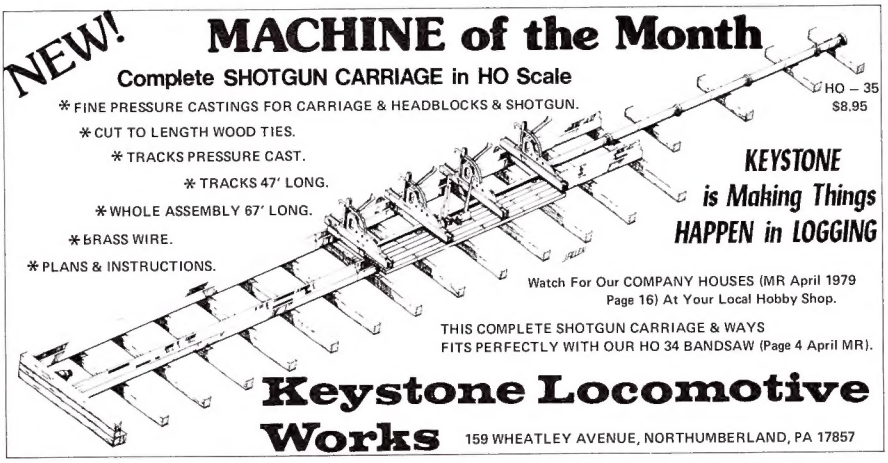

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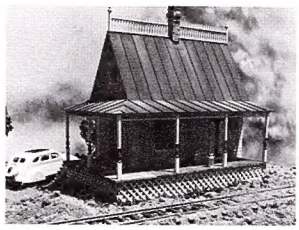

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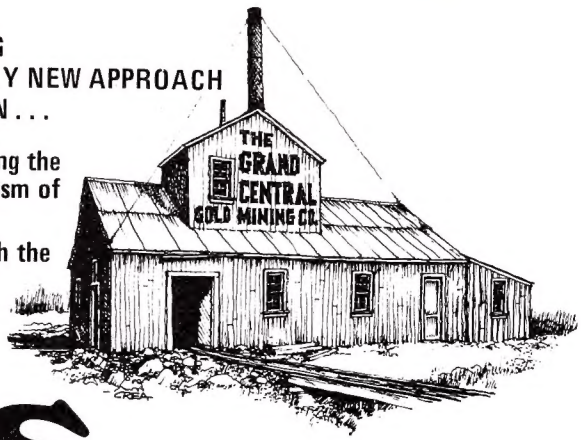

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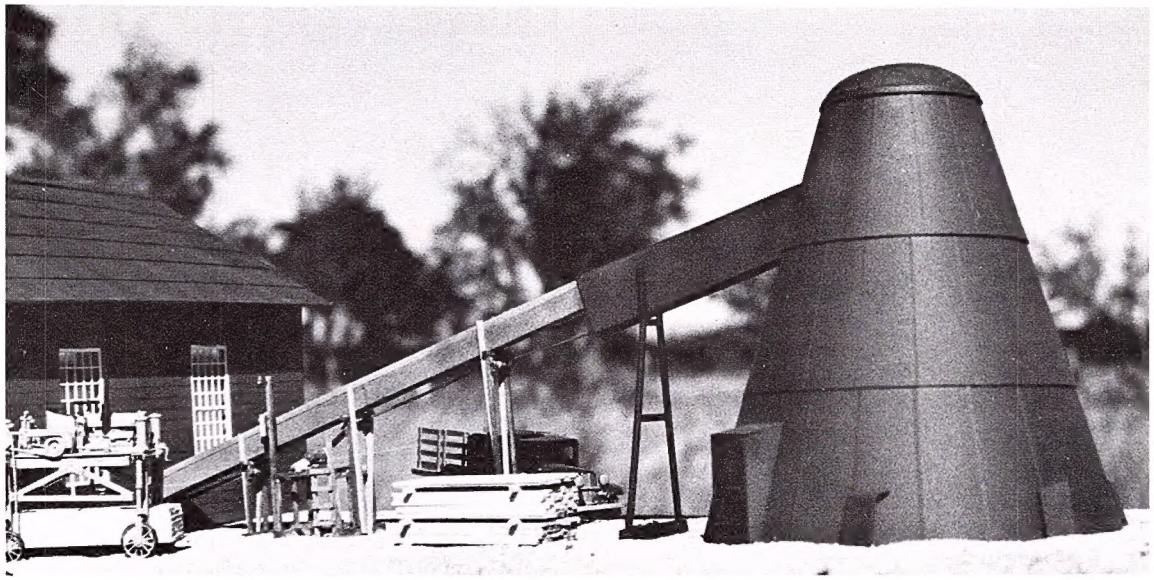
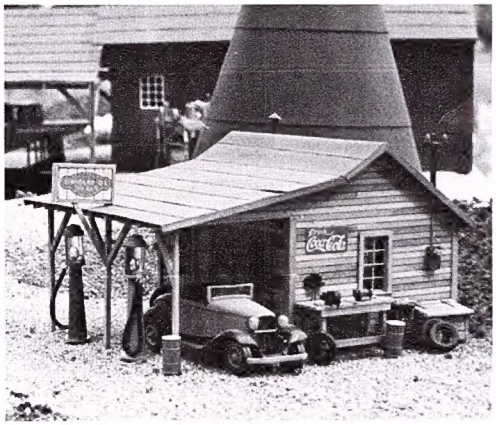


Sawdust/Slash burners like this one were used for many years by both large and small lumber operations. This burner will be right at home with just about any of the fine saw mill kits available now from other manufacturers. This kit comes with plastic injected pieces for the cone, metal castings from us and of course, scale lumber from Kappler Mill and Lumber Co. HO Only EHD-503 $19.95



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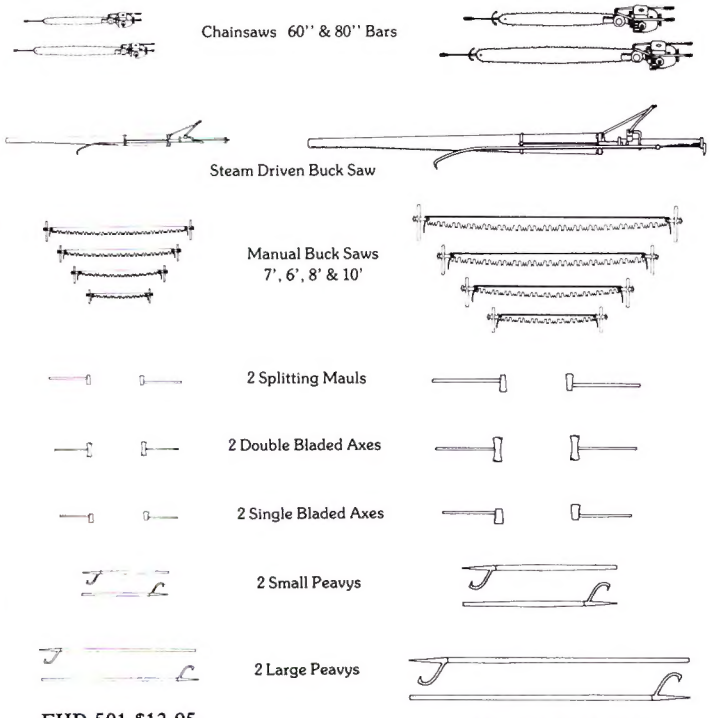

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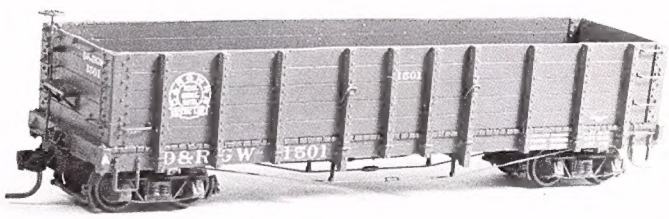

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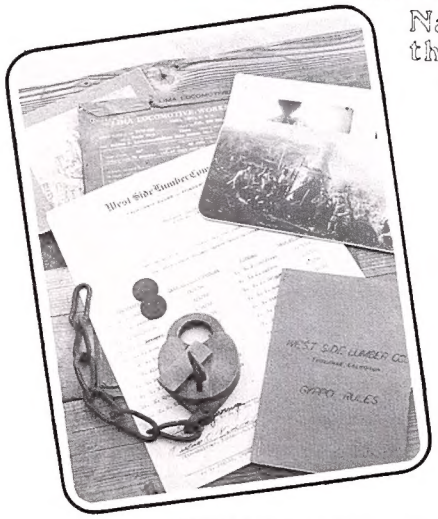

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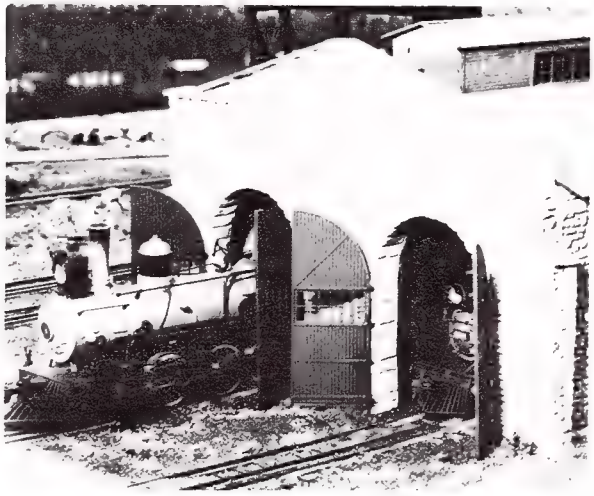

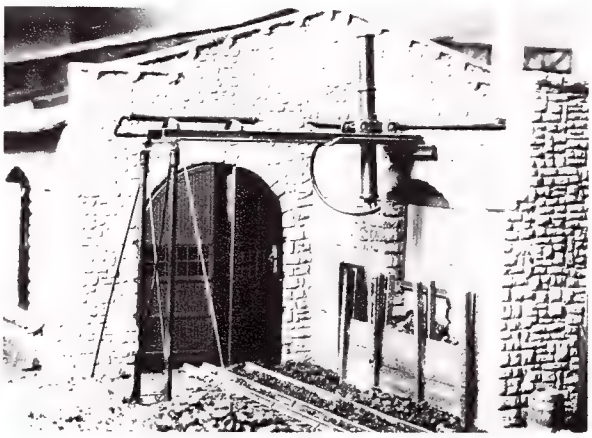

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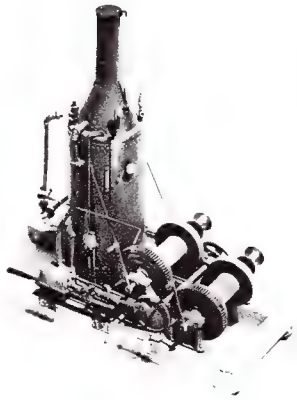

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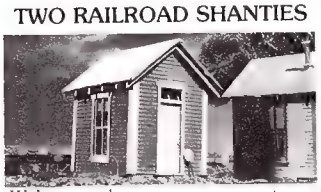

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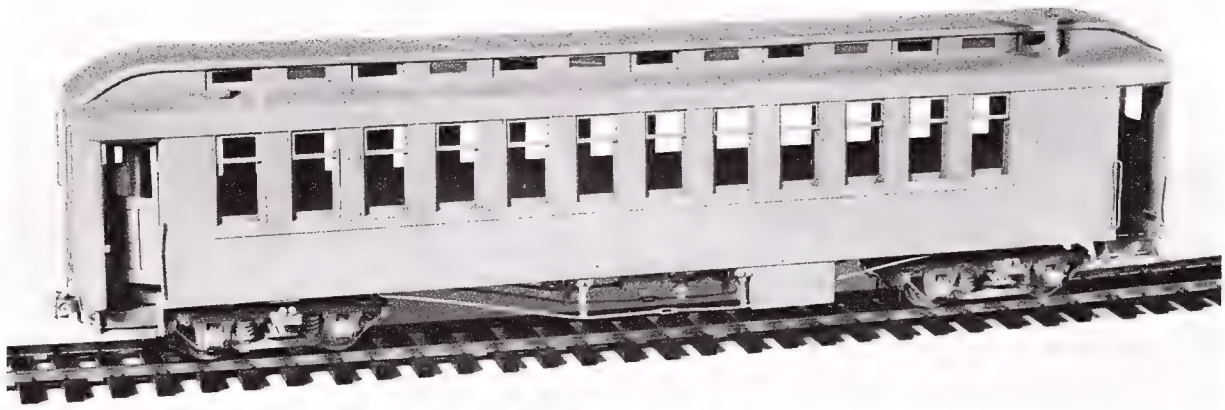

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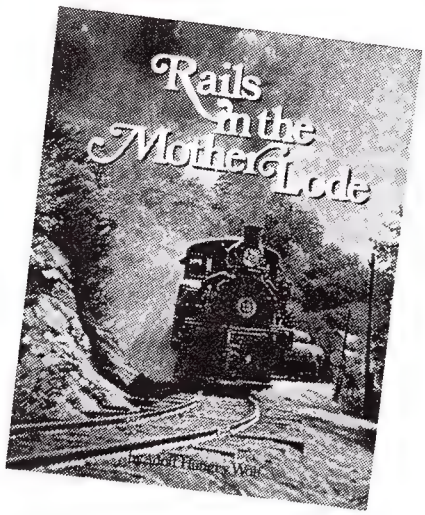

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Photo of pilot model by Bill Calmes

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NEW in REVIEW

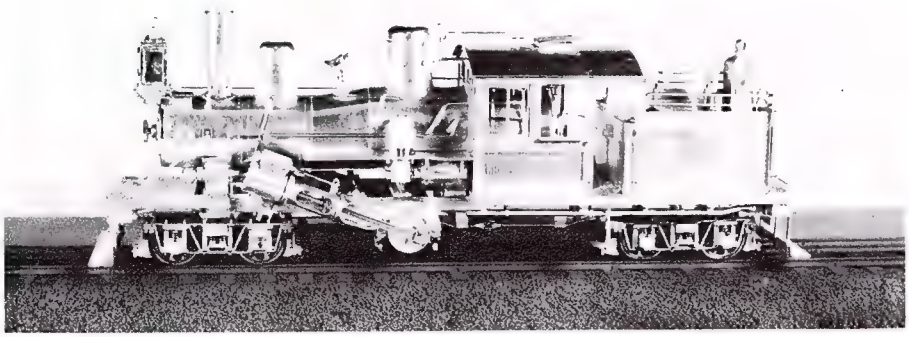
On3 Climax
Iron Horse Models
1120-B Gum Ave.
Woodland, CA 95695

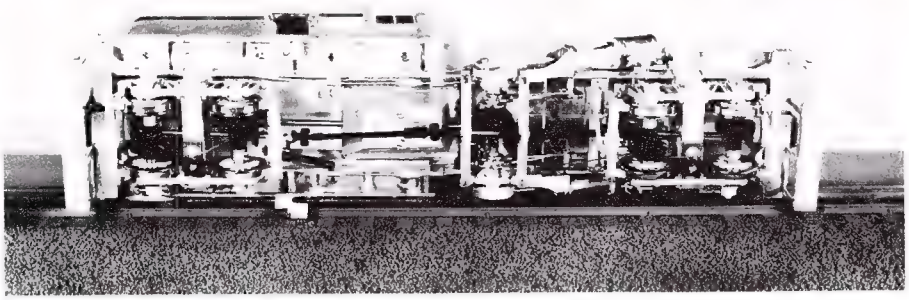
Iron Horse Models has imported the first ready to run O scale Climax ever offered. The model is for a large three foot gauge model. It is a 42 ton Class B. The Climax is offered in On3 and standard gauge. Our sample is of the three foot gauge version. I think many of the parts for this model are from the old LeeTown Climax. However, it is obvious that this is not just a re-issue of the Lee Town model.

Our sample of this locomotive is neatly and cleanly assembled. There were a few bent parts which were easily straightened. Very little solder shows and none of the parts are crooked. The sheet metal work is clean and I found the rivets well executed. Some of the castings show a surface texture which marks them as castings but I think the paint will smooth this out. The frame, pilots and pilot decks are lost wax castings. The cylinders and brackets, as well as the trucks, are also brass castings. The trucks are sprung and have working journal box lids. Brake beams are mounted on the trucks. The rods and valve gear parts appear to be plated. The eccentrics are working. The basic piping is bent wire. The hand rails are mounted in knobs which are quite fine. There is a detailed backhead made up of 10 or 12 castings plus the various pipes which go into a backhead. The domes have a very shallow step on the bottom and have separate lids which I left off in the photos. The wheels are brass castings with nickle-silver tires. They are rim insulated and pick-up off of the edges of the flanges. This system provides a very reliable pick-up.

The locomotive has a micro-motor with an offset head. This drives via a long shaft to a delrin cross-box assembly which drives the cylinders and the valve gear. A short shaft, held in place by cast pedestals, transmits the drive to the trucks via delrin slip joints. The trucks have delrin gears on each of the four axles. This gearing system is by Grandt which accounts for its smoothness. My sample ran very smoothly. I did have to fiddle a bit to get the pick-up to work. The locomotive is silent at slow prototype speeds and has a characteristic micro-motor whine at full speed. Be prepared to accept very slow steady running from this model which is the nature of a Climax locomotive.

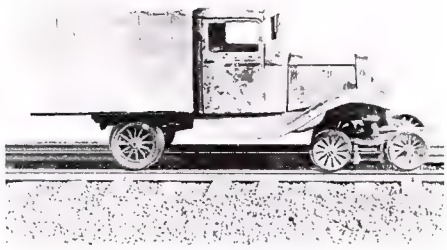
I found this import to be a very pleasing model. It should paint up into a wonderful addition to any On3 logging layout. I am looking forward to seeing the standard gauge version since we need some small well made standard gauge locomotives which are ready to run. Incidently the Climax comes complete with a West Side Lumber Company long caboose. *Bob Brown*





HO-HOn3-On3 Rail Truck
Wheel Works
P.O. Box 1836
Lynnwood, WA 98036

I am a sucker for rail trucks, so when the new Wheel Works' release reached my bench, I couldn't wait to build it. The kit contains excellent quality white metal castings and brass wire for axles. There is very little flash on the parts, and the detail is excellent.

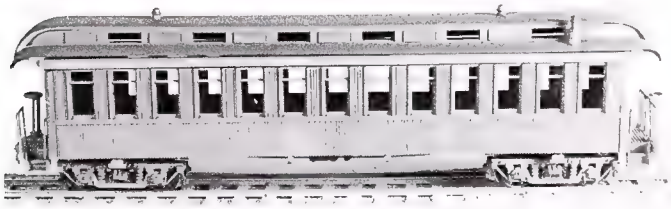


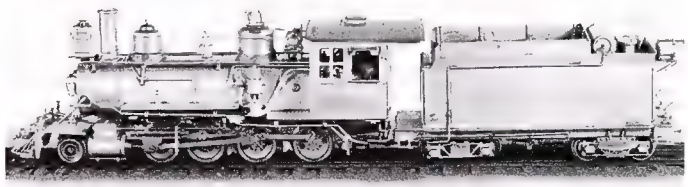
I followed the instructions which were quite good, and only encountered a few problems. An isometric drawing is provided, but no plan as such. This generates some confusion, for example, as to where the rear frame extension attaches to the main frame. Note that it fits under the main frame, sliding into bracing cast on the frame itself. By the way, the bolts on the rear frame extension face *downward.*

When drilling out the wheel hubs, use either a drill press for accuracy, or start the hole with a pin vise vertically and then hold the wheel in your hand and drill *slowly* horizontally. This allows you to exercise more control to insure a vertical hole. The drilling is the only tedious work — all the other parts attach easily with ACC or a contact cement such as Goo. Do final assembly of the wheels to body on a piece of track to insure proper alignment.

I elected to close in the rear of the truck with Kappler wood planks, using a canvas roll (Kleenex) for the back. I also tried Nash and Greenberg's techniques on peeling paint and they generally worked well. However, my faded boxcar red paint came out distinctly pinkish. Thank heavens for black and white photos.

I'm quite pleased with the results. With a little work, and a "flea" unit, the On3 version (and perhaps the HOn3) could be motorized. I plan on adding a headlight, tool box, and bell to my unit. I assembled the On3 sample; the HOn3 is similar — only smaller. This free-lance truck is really a nice addition to your roster and no doubt will be welcomed by your track foreman. On3 # WW-110 $19.95, and HO or HOn3 # WW-111 is $9.95. *Charlie Getz*





HOn3 Passenger Coach
E & B Valley
14 Soundview Ave.,
White Plains, NY 10606

E & B's new little passenger coach is a beauty. I just completed the assembly of the open platform version and found few problems. E & B has both the open platform and closed platform versions of D&RGW #319. By using this car E & B was able to make one set of sides serve for both cars. The entire kit is made up of black injection molded styrene. The parts come on sprues and are very clean of flash. The roof is a one piece casting. You merely have to add the clerestory sides, roof vents and smoke jack. The clerestory sides have the windows cast on including the screen covers on some of the windows. The clerestory sides have to be fitted very carefully and take a little patience. Unlike the long caboose the passenger car roof does not have the tar paper texture cast on. The sides of the car are excellent. The letter board is a separate casting and has to be glued on; the floor is a one piece casting. You add on the truss rod pedestal, nylon truss rods, turnbuckles, and brake detail. I had trouble with my turnbuckles so I left them off. My trouble was in seeing them (new glasses) and is not a problem with the kit. The trucks are well detailed and went together easily. The wheels are injection moldings. You may want to replace them with metal wheels for smoother rolling. The end beams and hand rails are well detailed even if a bit over size. The ease with which they went on the car compensates in my opinion with the slightly thick appearance. The car comes with dummy couplers and full directions. The closed vestibule version has square corners on the body. However the open end version has a quarter round end piece at each corner. On the kit you must cut off three boards on the sides and fit on the quarter round with its lamp iron detail. You also have to cut a few boards off the ends to fit the quarter round corner piece. This is not hard since the back of each side has a recess where you are to trim. All in all this is an excellent little coach. It went together with little trouble in less than a week of evenings. I am pleased with the fragile appearance of the model and the $18.95 price is not hard to take either. *Bob Brown*

HOn3 RGS C-17 #42
Key Imports, Inc.
655 Redwood Highway
Mill Valley, CA 94941

RGS #42, a consolidation, was one of six C-17 class narrow gauge engines built by Baldwin for the Denver and Rio Grande in 1887. Originally numbered 420, the RGS acquired its #42 in 1916, and was used in the road until the end of operations. The engine is currently on display at Heritage Square in Golden, Colorado.

The Key Imports Model is an accurate representation of this engine as it looked in the late 1930's — early 1940's. (It lost its distinctive box headlight about 1943). It compared favorably in detail to photos of the prototype in *Silver San Juan,* (Pruett, Boulder, 1973) and features full cab detail in the deckless cab. Overall, the quality of parts and assembly on my model was quite good, although some of the soldering is a bit sloppy. Other samples I have seen have been less desirable in quality with pocked brass pieces, crooked assemblies (such as the generator) and blobs of solder. A little careful checking will reduce repair work on your part.

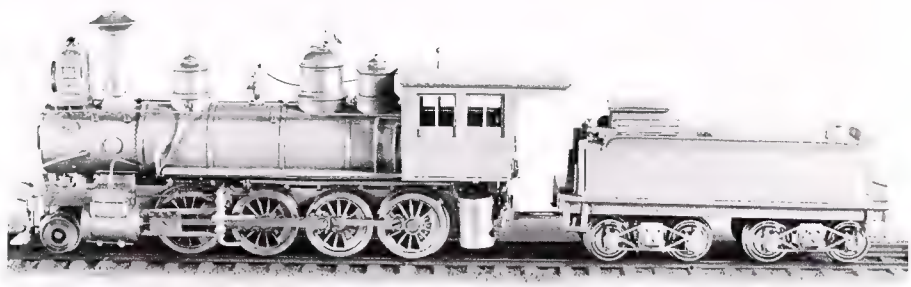
A can motor provides quite smooth operation both forward and backward. All the samples I tested ran very smoothly with little gear noise. Obviously as with any engine, you should test-run yours before purchase.

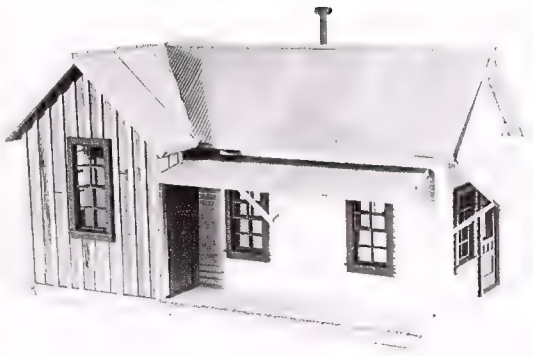
Sometimes, things look bad -when they're not. For example, my sample's classification lamps were crooked. When I checked *Silver San Juan,* by gum, so were the prototypes! Nitpickers, beware!

You'll like this little engine — the first model of the C-17 class, and a must for RGS fans. Check your dealer for price and availablity. *Charlie Getz*

HO 2-8-0
Empire Midland Model Co.
P.O. Box 1519
NY 10001

The new Empire Midland Pennsylvania HIA 2-8-0 series 1874 is a very eastern vintage prototype. The prototype for this locomotive was an early prime mover and has the chunky appearance of an early coal hauler. In their later days this type of locomotive was found on branch and short lines. In fact the Yosemite Valley had a very similar engine on its roster. Empire Midland's model is cleanly made and generally well detailed. My sample had a crooked cylinder block and smoke stack. The unusual three domes, large cap on the stack and switching pilot give the model a distinctive appearance. The tender couples too far away from the locomotive. The model is powered by a can motor. My sample ran uncertainly but this is not uncommon for brass imports right out of the box. If you are a lover of vintage locomotives or are looking for a heavy short line locomotive look into this new import. *Bob Brown.*



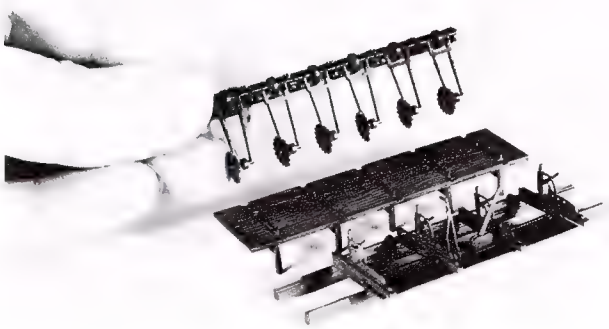


O Scale Cabin
The Structure Company
Box 6375 Washington Station
Reno, NV 89513

The Structure Company's first O scale building is a beaut; I assembled mine in about five fun-filled hours. The prototype for this building is located in the Columbia, California State Park. This little building has a painted clapboard section and an un-painted board and batten area. The kit consists of excellent Kappler lumber, Grandt Line door and window castings and Simpson corrugated roofing material. Construction of the building consists of cutting out printed paper templates which are then laid out on the Kappler wood. The templates must be used on the back of the wood and not on the front. I made a mistake on this and several of my walls are backwards. Once the sides are cut out I then used the weathering methods discussed by Nash and Greenberg in their weathering series advertised elsewhere in this issue. I identified my walls with letters on the back of each piece to get them in the correct locations. The roof is cut out of a printed sheet of heavy cardboard and fitted together with no trouble. The paper corrugated material colors easily and was glued onto the cardboard sub-roof. I found no problems in assembling this kit. It makes into an attractive structure. I really do not think it could be improved on even if I had scratch-built the building. I hope the Structure Company is encouraged to bring out more O scale structures. I know I will be first in line. The kit sells for $18.00. See your dealer. *Bob Brown*

HO Sawmill
Keystone Locomotive Works
159 Wheatley Ave.
Northumberland, PA 17857

Keystone has brought out one "whale" of a kit. It is massive by any standards. The kit weighs about three pounds and builds into a 7 inch by 14 inch three-story eastern double bandsaw mill. I have not yet assembled my entire kit but I have assembled most of the machinery. The model has over 400 white metal castings. Many of these make into the very well done bandsaws, roller system, overhead belt system, carriage, edgers, and cut off saws. An entire overhead belt system is provided. However, many of the castings are used for roof rafters. Making the roof trusses for such a large building can be a very time consuming process. It is also very tedious. Keystone has cast all the roof rafters for you. They also cast the little angled braces on the many vertical uprights on the building. The windows are also white metal castings and there are lots of them. The sides for the building are pre-cut out of sheet, board and batten siding and strip wood is provided for the many braces. A very complete instruction sheet is provided. It not only shows you how to assemble the building and the many machines but also shows the location of the building in a total mill complex. This is an unusual and well done kit. The machines went together with no trouble and are worthy models in themselves. If you are interested in logging I strongly recommend you get one of these kits. The model sells for $59.95 and is a limited run. *Bob Brown*



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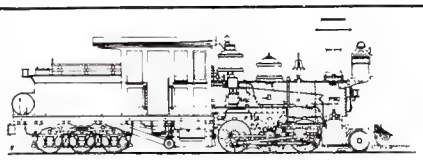
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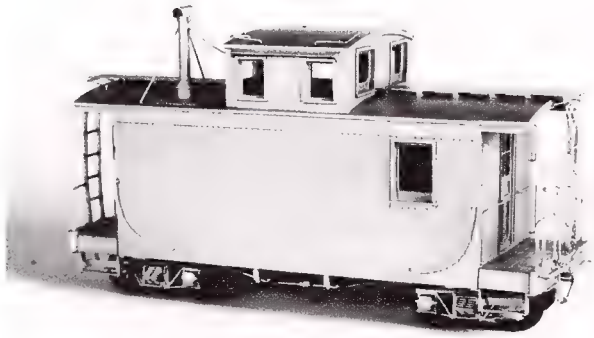
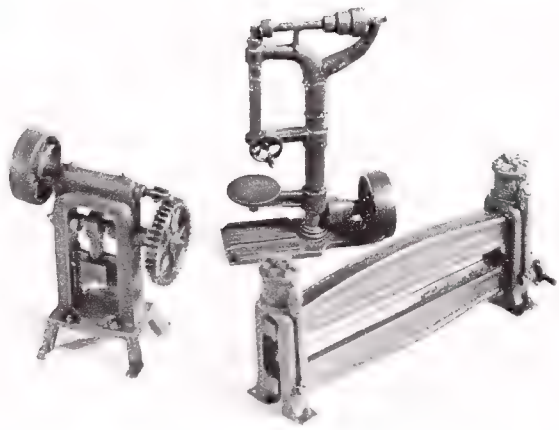
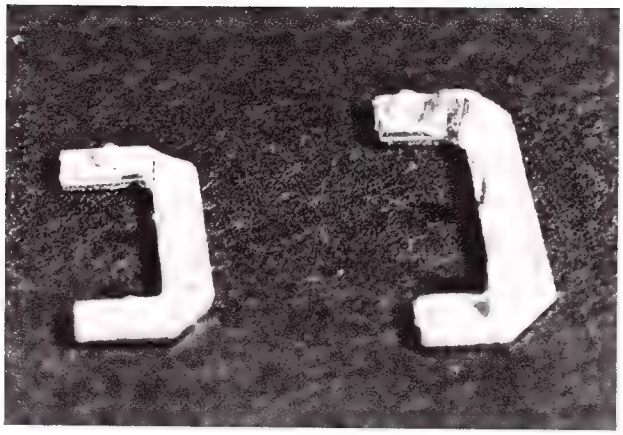


Sn3 is continuing to grow. One of the latest offerings is by PFM, P.O. Box 57, Edmonds, WA 98020. They now have imported an Sn3 D&RGW short caboose. The model is of the popular caboose used not only on the D&RGW but also on the RGS and the Florence and Cripple Creek. The model comes completely assembled and sprayed a gold color. The workmanship is neat and the superstructure comes off so window material can be installed. This is a well done model of a very popular caboose. *RWB*

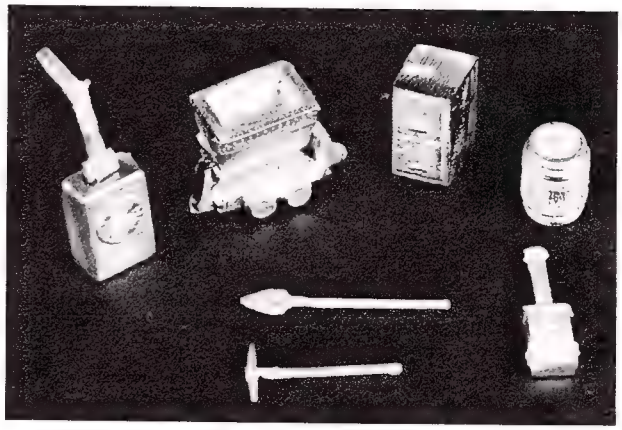
Rio Grande Models, Box 4463, Agnew Station, Santa Clara, CA 95054 has added three more HO scale machines to their expanding line. These machines are also usable in S and O scales as smaller machines. The new set consists of a metal flanger, a trimmer and a drill press. They are all cast in white metal. Mine went together with no problem. The set sells for $5.95. *RWB*

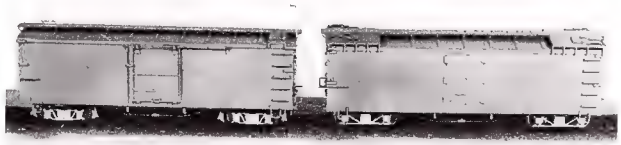




Kadee automatic couplers have almost become standard in HO/HOn3. One problem with these couplers is the slightly unrealistic appearance of the face of the draft gear box when installed on a car. Rio Grande Models Ltd., Box 4463, Santa Clara, CA 95054 has solved this problem with their new HO scale white metal buffer plates. Set #3500 gives you eight buffer plates for $1.50. Set #3501 provided eight HOn3 buffer plates also for $1.50. You merely have to file of the top lip on the Kadee draft gear box and glue on the new buffer plate. These are very innovative parts and should go far towards improving the appearance of HO/HOn3 cars. *RWB.*

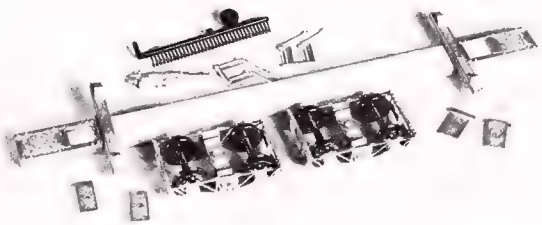
Model Masterpieces' new line of cast metal detail parts in HO (formerly produced by Timberline) is quite nice. Detail is fairly good, although some parts are slightly rounded. The mine car (18 inch gauge) deserves special mention as it is different from others produced yet typical of many actual cars. Sample castings examined included a spade (#313, 6 for $1); 2 or 3 drawer file (#323, 4 for $1); 18 inch side dump mine car (#335, 2 for $1.25); urban mailbox (#337, 4 for $1); 1870 chord pump organ (#345, $1.25); oil stove with pipe (#348, 2 for $1); radial arm saw (#355, $1); and roundhouse stove (3 piece-set $1). These are only a few of the many castings offfered. *CWG.*





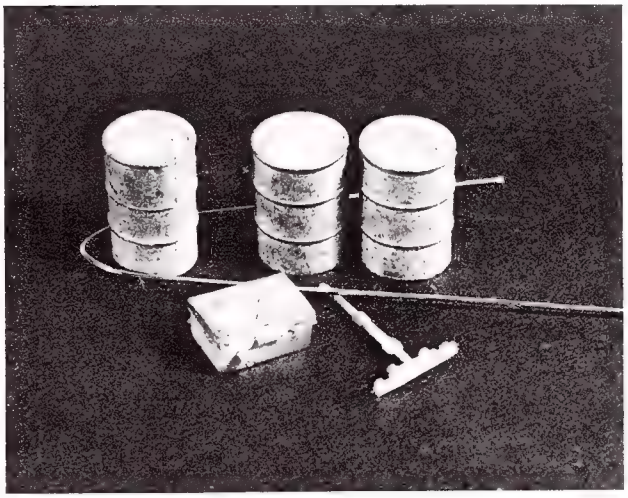
Here are two new brass HOn3 freight cars released by Empire-Midland. The refrigerator car is based on D&RGW numbers 32-81. The box is a D&RGW 3000 series so typical of the narrow gauge. Overall the detail is good and accurate, although the truck sideframes are a bit coarse. The workmanship is also excellent with no discernable soldering marks. Overall, these cars are an easy way to add to your roster, with no weight problems. The cars are available in On3 as well. Check your local dealer for price and availability. Good quality. *CWG*

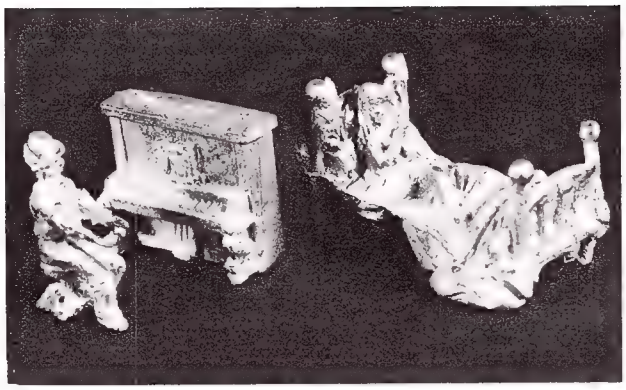
Detail Associates, Box 197, Santa Maria, CA 93454 has three new O scale detail sets available. The first set consists of two stacks of sacks with two separate sacks. The sacks are cast in a plastic like material and have a weave pattern cast into them. They are very realistic. Ask for part #5008 at $2.50. Set #5012 is for a C&S/RGS brake gear set. The set consists of three pieces cast in white metal. Each set sells for $2.00. The third set of detail parts is for a caboose/camp car. The set consists of a canvas water sack, frying pan, dish pan, kerosene lamp and bracket, coffee pot, water cooler, and broom. These are excellent white metal castings. This is set #5011 and sells for $3.25. *RWB*



Rio Grande Models, Box 463, Agnew Station, Santa Clara, CA 95054 has a new Sn3 kit available. I was unable to complete my kit before deadline but I loved the size and feel of Sn3. The kit is for one of the Swayne log cars which eventually went to the West Side Lumber Company. Cast end sections are attached to a wooden center sill. The end sections along with the log bunks and bolster details are white metal castings. The air hoses, brake cylinder and trucks are also cast in white metal. A strip of plastic nuts and bolts is provided. The wheels are metal and I found the trucks to be well detailed and fine in appearance. Directions are provided along with an exploded view of the car and a set of plans. I found the plans so small that I had trouble locating where the small parts and piping should go. The kit should make up into a fine model and I am going to finish mine as soon as time permits. The complete kit sells for $11.95. *RWB*

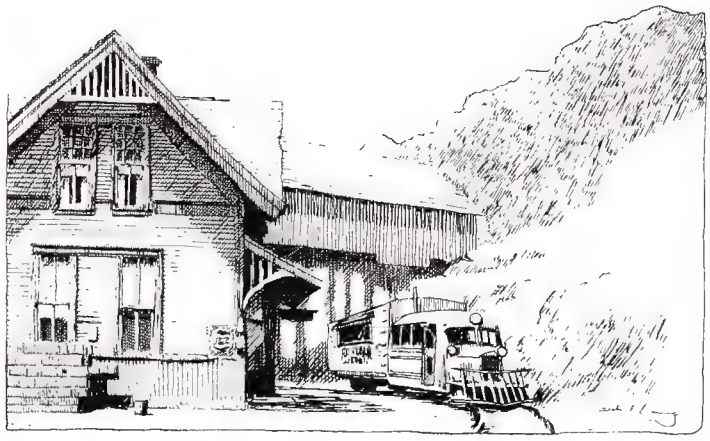
Sequoia Scale Models has two new detail kits available. The first is for a Portec Rail and Flange Lubricator. This device is used to grease flanges on tight curves. The kit consists of a track side box, the necessary piping and three oil drums. Full directions are provided. The parts are cast in white metal. The flange lubricator sells for $2.49. The second kit is for a train order platform. This kit is composed of wood strips and white metal castings. It makes into a small platform with steps leading up to the train order bracket. There is a lamp on top of the platform to light things up. This kit sells for $2.49. These are both well detailed kits composed of nicely made parts. *RWB*





This is one set of HO figures I had to have! It is but one of a new series of 1890 era figures from Heritage Models, Inc., 9840 Monroe Drive, No. 106, Dallas, Texas 75220. Typical of the line, the "Sporting House" contains a piano player, lady *au naturel* in bed, and five other figures. Perfect for your red light district. These well-detailed white metal sets retail at $2.95. 1945 era figures are also planned. *CWG*

The Narrow Gauge SCENE



by Charlie Getz

With a little bit of luck, I should be in the Rockies as you read these words. As of deadline time, it looks like "Great Freight" will take place – your response has been overwhelming. I hope to enjoy this event with many of you. Next issue we'll have photographs for those who couldn't make it.

Don't forget the **MDC-GAZETTE** Locobashing Contest which is still in progress. The deadline for entries is October 15, 1979, so get cracking on that MDC HOn3 outside or inside frame engine, and take a chance on one of the prizes. An SSAE brings you contest rules, so why not get involved?

The **GAZETTE** staff recently attended the PCR Convention in Santa Rosa, California. It was a real treat to meet many of our readers as well as to re-acquaint ourselves with some of the excellent manufacturers that you read about in these pages. They all deserve a big hand for manufacturing the products they do in a business that often-times is marginal. There are a lot of new interesting products coming, so let's get right into the news.

On the brass market, there are a lot of new imports promised. The most significant trend appears to be the emphasis on non-Colorado narrow gauges and some non-Rio Grande Colorado lines. For example, Westside has a host of non-Rio Grande motive power planned in HOn3. Look for a West Side Lumber Company Shay #10, RGS K-27 #455, NCNG #8, C&S #75, and a four-truck Shay. I saw the four-truck Shay at the PCR, and it looks really impressive. It should be able to pull the wallpaper off your wall.

Iron Horse has some exciting plans including a Colorado and Northwestern three-truck climax in On3 for release early next year, a Sumpter Valley-Uintah in On3, and some Rio Grande engines to boot. These include C-16 #271 in On3 this year and a C-19 and C-25 in On3 next year. A very limited number of 0-6-0T's in HOn3 (200) are due soon. Sunset should be importing the D&RGW C-18 in On3 soon, followed by RGS #25 in the same scale. Of course, the big news from Sunset is the East Broad Top Mike which should be out now.

PFM is re-releasing their ever-popular D&RGW K-28 in HOn3. In On3, look for the original version of the D&RGW caboose, and Sn3 fans can look forward to the Pagosa Junction combine and RGS 20. HO standard gaugers can expect D&RGW motor car #592. Key Imports has a C&S Consolidation in HOn3.

NorthWest Short Line finally has a photo of their "Dunkirk" and it appears to me to be a Shay on a flat car! Actually, the Dunkirk was a highly unusual engine, and certainly this should be welcomed for any motive power collector.

On the rolling stock front, Empire-Midland promises even more HOn3 and On3 freight cars. The On3 box and refrigerator cars should be available now, and in HOn3 look for a drop bottom gon and 1400 series gondola soon. Recently released was a 41-foot reefer, called the Hamilton reefer by E-M after Fred Hamilton of MR. Despite the name, it is a D&RGW long refrigerator car, the first such model offered.

Prolific Rio Grande Model's new D&RGW derrick OP should be out now in HOn3. The pilot model looks great, as expected from RGM and features etched brass "X" bracing for the boom. The new D&RGW water car 0470 in HOn3 is based on a Uintah tender conversion, imported in brass from PFM some time ago. The McGiffert log loader announced last issue is only the first of a new series of logging machinery in HO. Great news for fans of the tall timber.

Apologies to Russ Simpson of Simpson Products, P.O. Box 256, Smith Flat CA 95727, for *not* mentioning his new limited run kits. In On3 and HOn3, a West Side wooden water car and flat have been released as has a re-release of the popular D&RGW short caboose 0575. The caboose retails for $40.00; the HOn3 cars are $18.00 for the water car or *two* flatcars. Simpson *will* be releasing more limited run rolling stock kits, and will continue to make custom trackwork.

The new epoxy rolling stock from Light Iron Models, P.O. Box 5752, St. Louis MO 63121, is *superb*. We examined the 1500 series high side gon, which has a one-piece body casting that looked injection-molded. It was that good. Detail parts are added to the basic body, such as grab irons and brake rigging. A D&RGW 6000 series flat is also promised as is a 30-foot refrigerator. Kits are offered either with or without Grandt trucks and Kadee couplers as follows: Flat $17.95 with, $12.60 without; Gon $23.95 with, $18.60 without. Light Iron also offers ready-to-run assembled kits at various prices – drop an SSAE for list and prices. The quality of this work is excellent, and the prices reasonable.

NorthWest Short Line has a new brass 6500 series flat in stock for $22.50 in HOn3, with a real wood deck. V&T Shops, P.O. Box 5597, Reno Nevada 89513, has more On3 epoxy passenger cars coming, including a D&RGW closed coach and "derelict" baggage or combine cars for use as stations/sheds. A D&RGW/RGS water tank is also proposed. By the way, the cast epoxy roof (round version) with shingles, not only looks good, but fits like a glove into the Durango Press/Kappler wood water tank! Maybe V&T will sell these separately; I know I could use one.

Chooch's new Machinery Sales building is one of the best designed structures I've seen – it *reeks* of atmosphere. (See photo.) At last, a good quality, appealing corrugated industrial building in ¼ inch! Also new are *two* shanty's in the same scale, and some O scale wallpaper. They also promise an elevated switchman's tower, and of course, the 1930's gas station. Chooch's impressive line of ¼ inch detail parts is trickling into circulation and will really boost ¼ inch modeling. A picture of Chooch's superb new Pullman-Standard six-wheel passenger truck serves to remind you that they also offer a great line of truck and freight/passenger car details. This truck is available in ¼ inch AAR too! Coming is a wood-beam version.

Tom Yorke's new gingerbread house (labelled a milk station) is a natural for perching on a hill to overlook your yard.

Marbles depot, called "Rubbles" by Yorke, is also due soon in both HO and O. It has a round tower, superb stonework, and cast shingles roof. The new Hillside cabin in "O" retails at $44.95 and is very special – only 100 will be offered. A word to the wise!

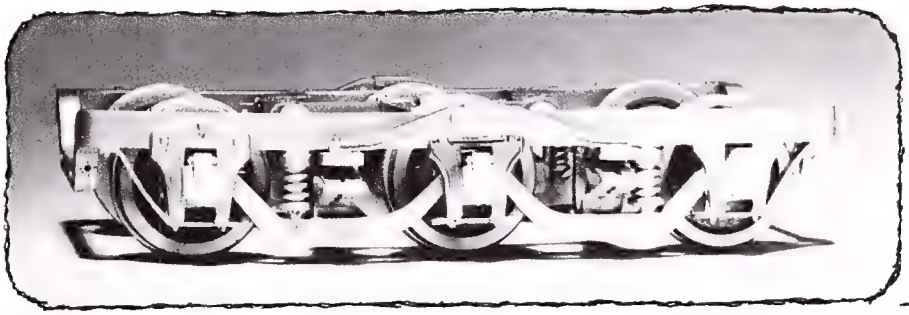
Wood wizard Frank Kappler's new ¼ inch wood shingles must be seen to be believed. Strips of individual wood shingles are provided for an almost unbelievably realistic roof. Not inexpensive, but extremely effective. Also new from this innovator is a plank siding that features individual boards (random or set width) laminated on a flexible backing, provided in sheets. All the advantages of individual boards at a fraction of the effort! You can find this new siding on the Structure Company's new gold mine, with die-cut walls/windows, Herald King decals, Grandt line castings, Campbell corrugated roofing and Structure's own cast metal smokestacks all add up to a *superb* kit. As a bonus, you get a powder shed – only 1200 HO kits will be run with a price of $28.50. By the way, Kappler also has a new line of ties in O-On3, HO-HOn3, both switch and standard, coming soon. If anyone could build a wooden submarine, it would be Frank Kappler.

In our abbreviated Products of Interest Department, Grandt Products' new economy draft gear in On3 is available, as is an HOn3 bolster for a high side gon. Some new ¼ inch figures are coming as well. They are all Grandt-quality, a term one hears more and more as a standard of excellence . . . Model Masterpieces has a new HO stone two-stall enginehouse with powerhouse attached. At 108 scale feet, it should handle most HO engines, and is visually compatible with the Colorado Midland roundhouse. By the way, rumor has it that the CM roundhouse may be produced in ¼ inch. Imagine the size of *that* one! Also new from MM is the Como turntable with machined mechanism and a new air-operated hoist cast in white metal.

Taurus Products, P.O. Box 6534, Orange CA 92667, has a new cattle ramp which actually rolls out to allow loading from the main line in places where no space for a spur is available. It is based on an actual prototype, but shades of Lionel. Look for a new Daley Brothers' pipe and supply kit this fall for $16.95. Both kits are HO scale . . . Fine Scale Miniatures sent some pictures of their new sand house complex in HO. Pretty nice . . . Gould Studios Miniaturists, 3521 Ocean Boulevard, Glendale, CA 91208, is expanding its superb line of ¼ inch styrene detail castings, and doing a lot of work for Chooch and other manufacturers. Drop an SSAE for catalog sheet, and don't forget their proposed ¼ inch styrene automobiles/trucks as reported last issue . . . Period Miniatures has a new Union Hotel in HO and N that is very impressive. The prototype was built in 1880 in Los Alamos, California, on the Pacific Coast Rwy. The model is a handsome reproduction of this large building with cast details and Kappler lumber. In N, #201 retails at $15.95, and in HO, #21 is $27.95. Period also has an extensive line of N and HO structural detail castings available. The best news I heard was Period's plan to produce an "O" scale Grizzly Flats depot with *wood* panels and operating windows. As a Grizzly Flats fan, I can assure you this is one nice station . . .

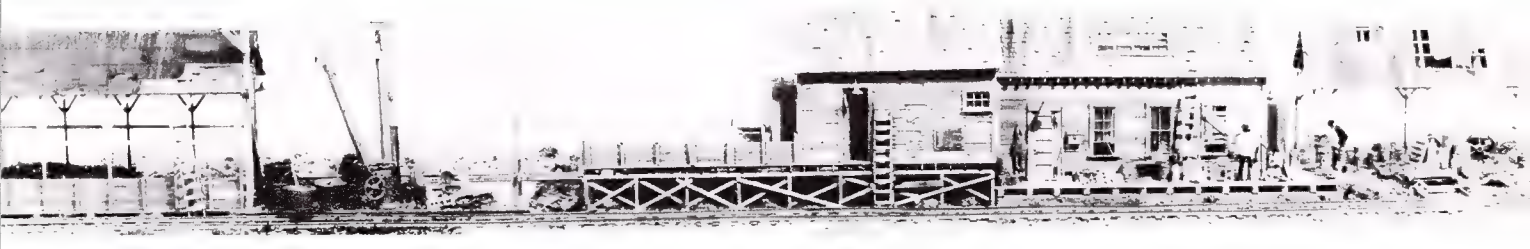
Clear Creek Models' new Red Mountain depot is interesting because the epoxy walls feature both exterior *and* interior detail work. Grandt doors/windows,

The new Chooch O scale Machinery Sales building. This structure has endless possibilities.



This fully equalized passenger truck by Chooch shows off the fine look of ¼AAR. This truck is also available in standard O gauge.

The new sand house complex in HO by Fine Scale Miniatures.



An HO scale overhead crossing house by Magnuson Models.

Campbell shingles, and Kappler wood are provided. Look for a stamp mill soon. These are really fine kits with great potential . . . Sequoia Models' new catalog lists some interesting new products, some of which were already listed in past columns. You've seen the sand house, kit #4012 at $19.95, and some of their detail castings. Coming is McClung's Meat Products in HO – a well designed complex. This winter, Sequoia plans another sand facility – this one a hand-operated hoist with buckets, designed to complement Durango Press' coaling loading facility. It is rumored Sequoia may produce cast epoxy HOn3-On3 SP stock cars, and a free lance HOn30 inch boxcar. If interested, drop them a note . . . Evergreen Hill Designs' slash burner is here! It will feature a specially molded hollow plastic cone, cleverly provided in interlocking sections. A wooden conveyor and cinder catcher complete this interesting kit. E.H.D. has an HO supply company with crane and gas station coming soon; the latter being an HO copy of their ¼ inch station. Besides the "woodsman" casting set mentioned last issue, a new line of detail castings in ¼ inch and HO are planned. Our cup runneth over . . .

Clover House has a new 38 foot queen post bridge kit in HO-S-0 coming, and is re-releasing the Simpson hillside water column. Don't forget the superb glass scriber and glass offered by Clover House, as these are a *must* for any truly detailed model. It is amazing how much difference real glass can make. Theirs is not only *thin,* but easy to work with . . . South Park Lines' new Alpine enginehouse is BIG! Bob Brown and I contemplate building a Z gauge layout inside. Seriously, this is quite a building with stone detail both outside and inside the wall castings. Comes with a coaling dock and water tank of Kappler wood, both located inside. (As was a turntable – to be offered soon) . . . Evergreen Scale Models' next styrene kit will be for Mueller's Emporium – a triangular building with recessed front show windows in HO . . .

Rogers Model Locomotive Shop, Box 555, Homewood CA 95718, will produce a Carson, Tahoe Lumber and Flume Co. knee-braced trestle in On3. Other kits planned are RGS Vance Junction coal pocket in On3 and Sn3, V&T trestle in O, and RGS Lizard Head depot in On3 (perhaps Sn3). On the latter, good luck notching all those timbers . . . Perles Pacific Products, P.O. Box 11466, San Francisco CA 94101, has an extensive line of dry transfers from N – O scale. Send 50¢ for a catalog . . .

Magnuson Models sent a sample of their new Main Street crossing scene in HO, M520 for $18.95. The kit contains *all* soft metal castings including interiors and the pneumatic gate mechanism, two crossing gates and junk. Looks like a great entry into the white metal world by these past masters of polyester resin. We'll do a review of this kit next issue if space allows . . . The Wheel Works' new log truck is here in time for loading from the McGiffert log loader (RGM). A Railway Express Truck, HO, will be produced next with printed billboard signs, WW-114 at $11.95. ¼ inch fans can look forward to a short stake-bed Ford truck with *real* wood bed and stakes. Over at Durango Press, the Fleming mail catcher is available, DP-70 at $5.95 in case you have any Fleming mail to catch.

Power Systems, Inc., 56 Bellis Circle, Cambridge, MA 02140, recently introduced Dynatrol, a simultaneous independent train control system with simplified wiring and independent control for engines. It allows up to 15 engines to be controlled. We anticipate more information on this new system and will report back . . . NWSL has a new novel motor – a *flat* can motor. Well, not quite flat, but oblong, and it should fit places where a "can" would not. These are ferrite magnet motors with slight cogging, and we hope to report back on possible uses. Don't forget NWSL's large re-gearing/powering sets for a variety of engines. NWSL reports their excellent "Flea" should return to the market soon . . .

A respected name in modeling, DARR's Scale Models, Box 81, Hawthorne NV 89415, has some new handcrafted weathered nickel-silver turnouts in N (HOn2½), HO, HOn3, Sn3, On2, On3, and ¼ inch AAR in code 55, 70, 83, or 100. Stub and 3-way switches are available, and a sample price is $5.50 for a #6 code 55 HOn3 switch. Excellent quality at a reasonable price. An SSAE brings information . . . Another turnout manufacturer, Railway Engineering, P.O. Box 421, Garden Grove CA 92642, also offers N-HO-HOn3 and On3 switches in code 55-70-83-100 as well as crossings in all gauges and codes. A #6 code 55 HOn3 switch is $4.95 (unweathered rail). Railway Engineering also manufacturers "Rollee Holder" track gauges in all scales and rail sizes. These color-coded gauges are priced at two for $2.98, and appear cast in epoxy . . .

Lytler and Lytler's new "Ragtimers" figures are really nice, as the photo shows. For $3.95 you get about 8 well detailed vintage HO figures sure to add much to your scene. Review to follow . . . Detail Associates released some very useful

The HO "Ladies and Gents" by Lytler & Lytler.

products recently. Their silver plating powder works is a dream. New detail kits in "O" include sacks for the freight dock, caboose/camp car detail set, and C&S/-RGS brake gear set. Don't overlook some parts because they aren't your "scale". Diesel lift rings (SY 2206) are really super small eye bolts with a variety of uses. And etched brass HO diesel brake vents are dandy "O" scale manhole covers. No joke! Coming are some unbelievable tools in HO and *N!*

In the Help Department, Chooch is exploring the possibility of converting O scale drivers to ¼ inch AAR as a service to our readers. At least 10 orders for the same engine are needed before work is feasible, so if interested, drop them a note with a list of engines you are interested in converting. Prices and details will be provided later, and your inquiry is *not* an obligation to order. Here is an opportunity to convert your "O" scale drivers to ¼ inch AAR at a reasonable price. Vince Ryan will do the actual work. In the red face department I goofed when I mentioned in the Mar/April **GAZETTE** that the Sandy River Car Shops' On2 cars come with trucks and couplers, they come *less* truck and couplers.

In our Narrow Gauge Notes Department, reader Michael Beane has cleared the mystery of re-fueling the Galloping Geese. There was no fuel depot as such. Cans atop the roof (Pierce-Arrows) or in the freight compartment (Wayne bus body) held gasoline for refueling the geese at station stops. Major refueling was done at Ridgeway, Rico or Durango, where, for example in Durango, the local gas station would send a truck to gas up the geese. Those days are long gone.

As you can see, there was no gas shortage in this column. Stay cool this summer, and write if the mood strikes (an SSAE appreciated). See ya in September.

Charlie

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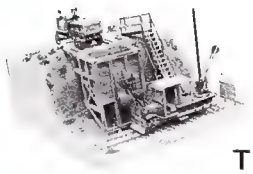

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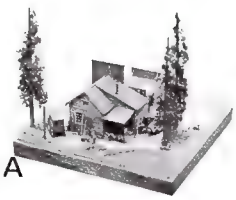

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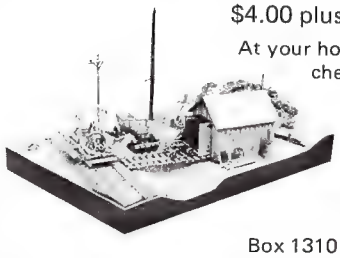

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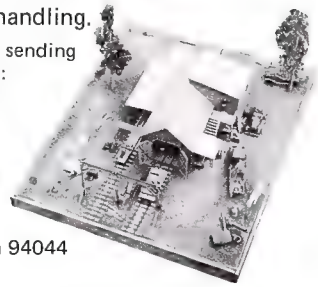

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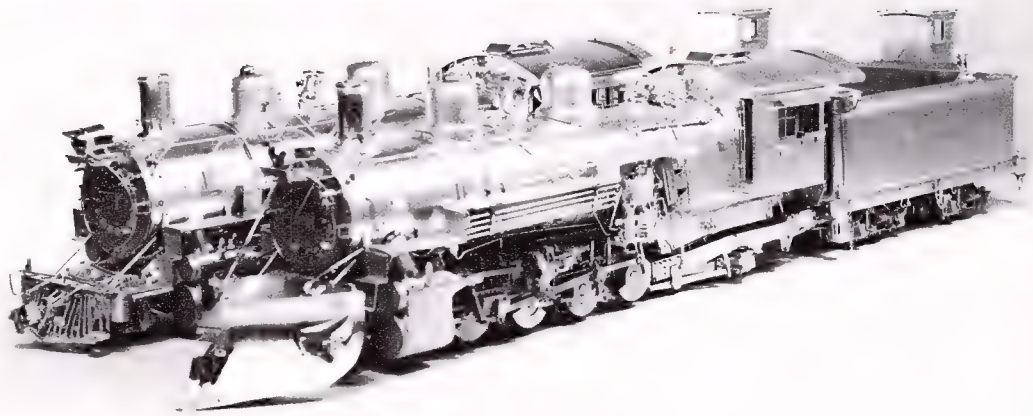

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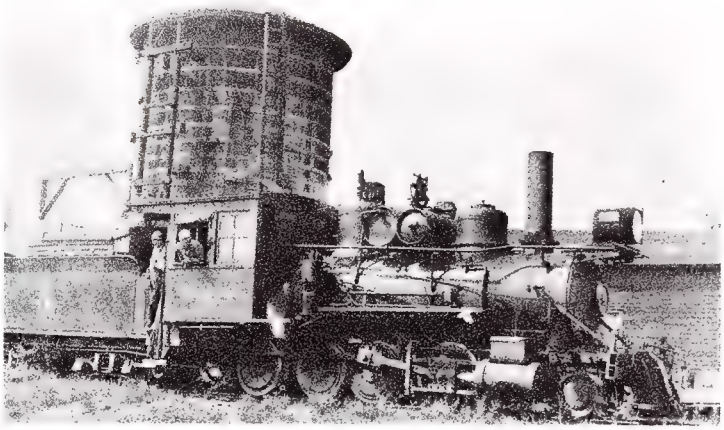


by Albin Lee

This is the first of three articles on the Bellevue & Cascade branch of the Milwaukee Railroad. Part one discusses the general history of the line and its motive power. Part two will appear in the September issue and will cover the rolling stock. Part three will follow in the November issue and will consist of track diagrams of the 35 mile long line. This series should inspire many of you to model this line or at least base a free lance model railroad on the Bellevue & Cascade. The Colorado-like quality of some of the locomotives and rolling stock along with the obvious eastern influence makes this railroad worth considering as a basis for your model building. Editor.

The Bellevue & Cascade Story: Part I

A gift from my wife of the 1949 reprint of Howard Fleming's 1875, *Narrow Gauge Railways in America* started me on researching the Bellevue & Cascade R.R. The updated 1871-1949 list of 750 United States narrow gauge railroads in this book somehow missed the Bellevue & Cascade branch of the Milwaukee Railroad. Since I had clipped all the narrow gauge articles from **RAILROAD STORIES** and **RAILROAD MAGAZINE** between 1930 and 1938 I knew the Bellevue & Cascade existed and was abandoned in 1936. I just *had* to find out more so I sat down with pen in hand. What followed was a bushel basket of correspondence. I wrote to the Milwaukee Railroad, the Iowa State Historical Society, the National Railroad Historical Society, the Railroadians, and the Railway & Locomotive Historical Society. They all supplied data and frequently gave me names of railbuffs to contact. More correspondence and finally I had enough material for a short article in the April, 1954, **TRAINS**, "Narrow Gauge in the Hawkeye State." This present series of three articles reveals what I have discovered over the last 30 years about this little known line.

The Chicago, Bellevue, Cascade & Western Railroad Co. was organized in August, 1877 and of course it never got to Chicago. Bellevue, Iowa on the Mississippi river was its eastern terminal, and it never got any further west than the 36 miles to Cascade, Iowa. Grading was done in 1878 until the company ran out of cash. Then the Chicago, Clinton, Dubuque & Minnesota Railroad Company took over in March of 1879. The new company completed the line into Cascade on January 1, 1880. Five thousand people helped celebrate that New Year's Day in Cascade, a town of some 900 people. The Milwaukee Railroad took over the line in October of 1880. The C.C.D.&M. had purchased three Pittsburgh 4-4-0's. When the Milwaukee Railroad took over they decided that the narrow gauge had an oversupply of motive power. So they appropriated one of these locomotives to pull the Milwaukee Road's transfer table.

On this little line a passenger train consisted of a combine and a coach. A freight train was made up of six to eight short 24 foot cars, similar to the early D&RG equipment with a 30 foot caboose on the tail end. The maximum grade was 2.8 per cent uncompensated, with a number of 12½ degree curves all laid with 56 & 60 pound used rail. The road, although only 36 miles long required a number of sidings as the steep grades made "doubling the hill' a common procedure with freight trains. Those little Pittsburgh gems did all the work for 25 years. Then in 1905 the railroad purchased a Brooks' mogul second-hand for $2000. It had run on the Ausable & North Western in Michigan.

An interesting incident in this railroad's history occurred when the 35th Iowa assembly passed a statute requiring the railroad commissioners to examine any railroad with a gauge less than 4 feet 8½ inches. It was apparent that they were after the Bellevue & Cascade as it was the only narrow gauge in the state. The investigation was made in 1915.

The citizens complained that they often missed out on the best market price for cattle, hogs and horses due to the delay at the Bellevue transfer. They also complained that merchandise was broken, hogs were crippled and coal suffered excessive shrinkage in the transfer at Bellevue. The commission stated that the service was no better or worse than a standard gauge branch line. Also, the railroad was responsible for damaged goods and that while they could recommend a change to standard gauge they had no authority to change the route. Since both engineers (citizen's & railroad's) agreed that the original alignment and grades were not satisfactory for standard gauge, that ended for all time the possibility of converting the narrow gauge to standard gauge.

In 1918 the Milwaukee Railroad purchased a Cooke consolidation, the old #55 of the Colorado & Southern and formerly Denver, South Park & Pacific #67. This allowed them to scrap one of the Pittsburgh 4-4-0's. Then in 1926 they purchased a slick little outside-framed mogul built by Baldwin for the Catskill & Tannersville Railway in the state of New York. A duplicate outside-framed mogul was purchased in 1928. This allowed them to scrap the last 4-4-0.

The repair facilities for the engines and cars consisted of a single-stall repair shop at Bellevue. When major repairs were required on a locomotive it was run on a standard-gauge flat car at Bellevue and taken to the Marquette shops (North McGregor, Iowa). At Marquette the flat car with locomotive was set out in a roundhouse stall and a platform built on both sides level with the flat car before the repair work was started.

One of the engineers told me the driving-wheel journal boxes on the inside-framed engines were very difficult to service. They solved this problem by taking out one tie in a number of trestles. When an engine developed a hot driving journal the engineer stopped the train on one of these trestles. Then he got out and crawled into the space left by the missing tie and there between the frames he serviced the offending journal.

The advent of hard-surfaced roads, the coming of the automobile, and the depression were a deadly combination for many railroads and interurbans. The narrow gauge had the added disadvantage of having to transfer freight between standard and narrow gauge cars at Bellevue. What was acceptable in the 1880-1920 period was too costly and time consuming in the 1930's. The Milwaukee road was in receivership in 1925 and was reorganized in 1927. The Bellevue & Cascade branch unfortunately ran up a $66,000 deficit in 1931. The Milwaukee road petitioned to abandon the branch in March of 1933.

However, in June of 1933, a newly formed Bellevue & Cascade Company took over the narrow gauge. The new

company agreed to pay the Milwaukee Railroad $18,000 in 120 equal payments of $150 per month plus 5 per cent interest. The B&C Company bought a six cylinder gasoline-engined 0-4-0 to use for freight and a rubber-tired Twin Coach railcar for passenger and express service. The 0-4-0 was called the "OX" because of its horn and the Twin Coach was called the "CANARY" because of its color. Unfortunately the OX couldn't handle enough freight cars so the B&C had to fire up a steamer. These economies were not sufficient and the new company defaulted on its payments. The Milwaukee Railroad then sold the line to a scrap company in January of 1936. The rails were taken up in April of 1936.

I have always felt the 1926 Milwaukee iron pony stable of a 4-4-0 Pittsburgh, a 2-6-0 Brooks, a 2-8-0 Cooke, and an outside-framed 2-6-0 Baldwin to be an excellent mix of wheel arrangements, distinctive locomotive builders and East-West prototypes. The rolling stock was also an interesting mixture of one combine and two coaches for passenger equipment. There were 50 box cars, 38 stock cars, 16 gondolas, 10 flat cars and a caboose for freight equipment. The maintenance equipment consisted of a pile driver, a slope leveler, a bunk and kitchen car, two air dumps, a wedge plow and a most unusual rotary plow. The caboose was distinctive with the cat-walk on either side of the cupola and the rotary plow was different with its auger and blower combination. (See the next issue of the **GAZETTE** for plans of many of these cars.)

Trying to find information to make drawings of a narrow gauge line that has been abandoned for such a long time is like trying to find a needle in a haystack. The Iowa railbuffs were magnificent. One found a stock car in a pig pen, photographed it, and then climbed in and measured it! Another located the caboose in a contractor's yard in Maquoketa, Iowa.

Several of the fans supplied photos and additional data. By scouring the countryside I located a box car. The Milwaukee Railroad supplied diagrams for three of the locomotives.

The Pittsburgh 4-4-0 drawing was a bear! No diagram was available and two conflicting drive wheel diameters were given me — 38¼ inch and 42 inch. With the cylinder size given of 12 x 18 inch and using a 9 inch throw on a close up of the drive wheels the 42 inch diameter seems the more likely and the drawing was so made. The Brooks illustration in Howard Fleming's book (page 41) shows a 4-4-0 with 11 inch x 16 inch cylinders, 44 inch drivers and 20 inch pilot wheels. The 42 inch drive wheels with 12 inch x 18 inch cylinders seems reasonable in view of the stiff grades on the Bellevue & Cascade branch. The Cooke had an unusual rebuild. The main-rod was originally connected to the second driver. Sometime between 1928 and 1933 a longer main-rod was used connecting the third drive wheel. Both are shown on the drawing.

A very dear friend, the late Frank P. Donovan of Mineapolis, Minnesota, a meticulous railroad researcher and published author, encouraged me in this project, always assisting with facts and constructive suggestions. This story is a result of his inspiration.

(Note: Gasoline engine OX will appear in the September issue. Editor.)

OFFICIAL MILWAUKEE ROAD, NARROW GAUGE LOCOMOTIVES, BELLEVUE & CASCADE BRANCH

Builder type	class	built	origin No.	date changed	No.	date changed	No.	date changed	No.	Disposition
Brooks 2-6-0	NM-1	1889	A&NW Ry.			12-05	1400	12-12	1 Sold	7-22-33
Pittsburgh 4-4-0	NG	1879	CCD&M Ry. 419	4-99	1408	5-10	1401	12-12	2 Scrapped	8-16-26
Pittsburgh 4-4-0	NG	1879	CCD&M Ry. 416	4-99	1405	5-10	1402	12-12	3 Scrapped	10-30-18
Baldwin 2-6-0	NM-2	1901	Birmingham Rail. & Loco.					6-28	2 Sold	7-22-33
Baldwin 2-6-0	Nm-2	1908	Birmingham Rail. & Loco.				1	3-26	3 Sold	7-22-33
Cooke 2-8-0	NC-1	1882	Colo. & Southern 55					8-18	4 Sold	7-22-33

Locomotive Data				
Type	2-6-0	4-4-0	2-6-0	2-8-0
Class	NM-1	NG	NM2	NC-1
Cylinders	15" x 18	12" x 18"	14" x 20"	15" x 18"
Valve & Gear	Stevenson Slide Valve			
Valve Travel	4½"			3"
Drive Wheel	36"	38¼"*	42"	37"
Engine Truck Wheel	24"	24" ‡	26"	24"
Journal			6" x 7"	
Drive Wheel Journal			4" x6¼"	
Truck Wheel Boiler Type	Extended Wagon top		Straight top	
Boiler Pressure	140#	130#	180#	145#
Boiler Dia. inside first course	48"		47"	50"
Tubes No. & Dia.	126-2"		107-2"	137-2"
Tube Length	7' 5¼"		13' 4"	10' 1⅝"

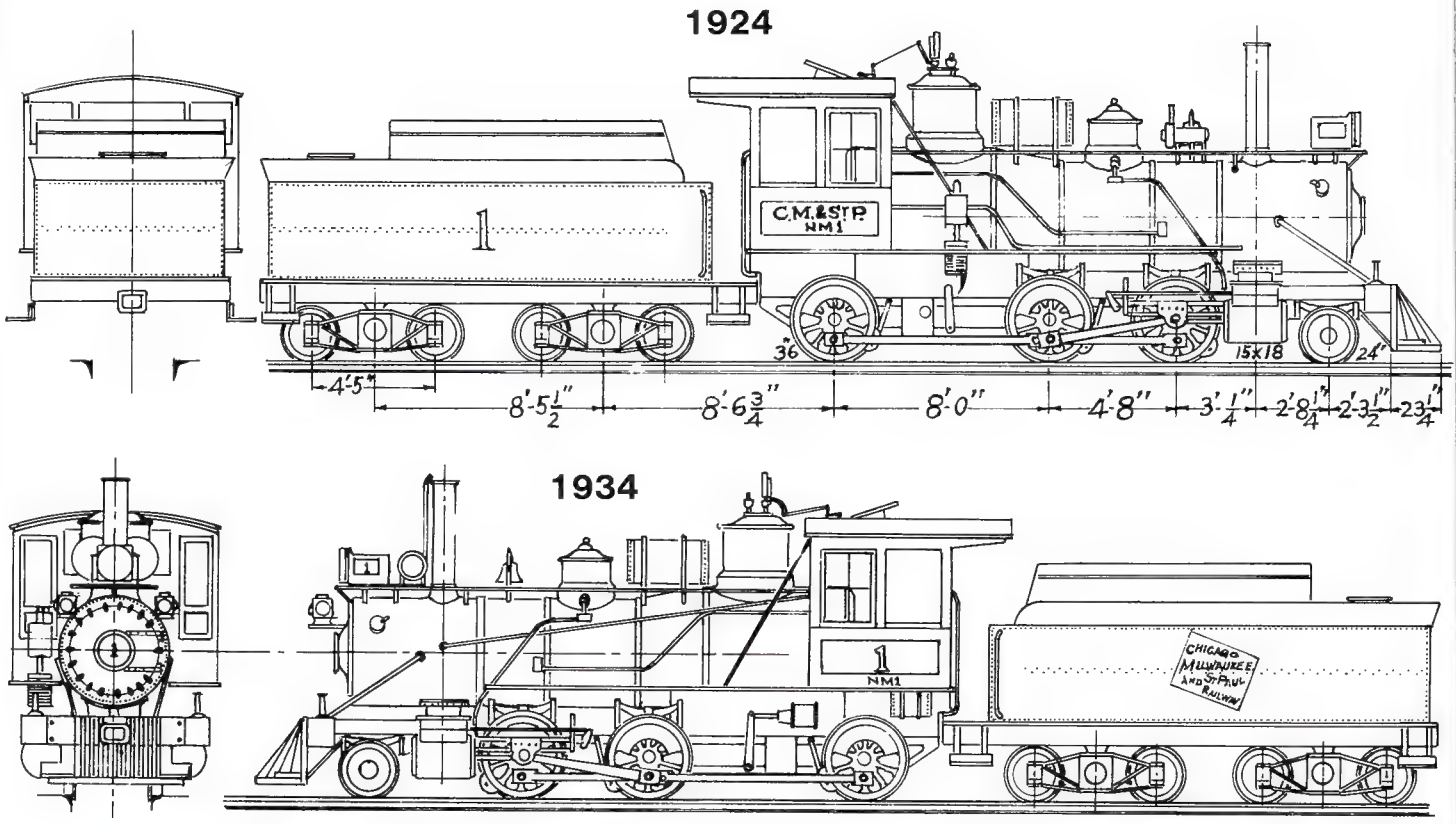
Class	NM-1	NG	NM2	NC-1
Fire box inside Length & width	70½ x 18		42 3/16 x 50 5/8	81 x 24½
Grate area	8.8 sq. ft.		15 sq. ft.	13.8 sq. ft.
Heating surface tubes	496 sq. ft.		770 sq. ft.	717 sq. ft.
Heating surface fire box	64 sq. ft.		60.5 sq. ft.	91 sq. ft.
Tender journals			3¼ x 5	4 x 7
Tender water capacities	2100 gal.		1600 gal.	1600 gal.
Tender coal capacities	3½ tons		5 ton	5 ton
Weight drivers	47,829 #		59,910#	54,600#
Weight truck	27,671#		7,250#	8,300#
Weight engine & tender			114,410#	
Weight working order	75,500#	61,000#	67,160#	62,900#
Tractive effort	13,387#		14,280#	13,490#
Factor of adhesion	3.6		4.2	4.0
Spread of frame centers	28½"		52"	27½"

* Shown as 42" in some ref.
‡ Shown as 20" in some ref.

7-7-54 A. Lee Revised 2-20-57

BROOKS AUSABLE & NORTH WESTERN RY.
BELLEVUE & CASCADE BRANCH — MILW. #1

75,500# WEIGHT IN WORKING ORDER
13,357# TRACTIVE EFFORT
140 P.S.I. BOILER PRESSURE
3½ TONS COAL, 2100 GAL. WATER
DRAWN JULY 1954, A. LEE, REDRAWN & INKED 8/2/78



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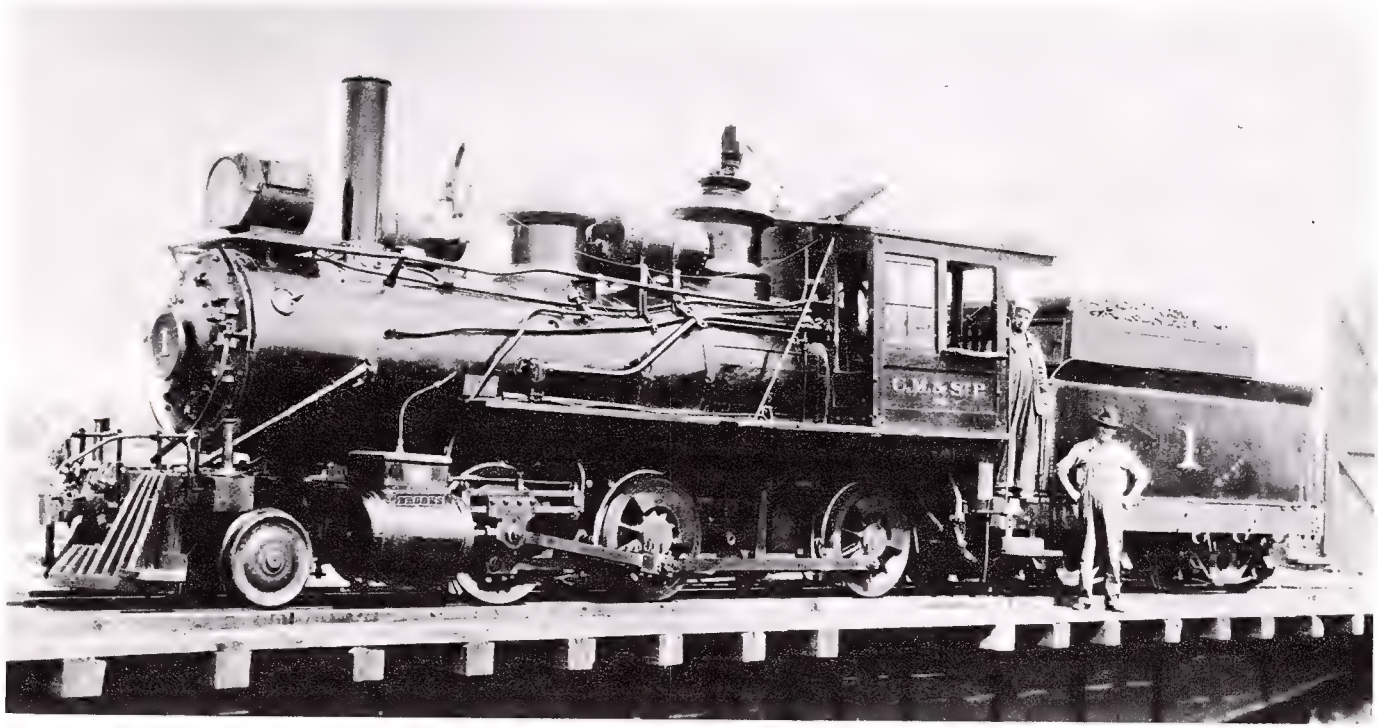
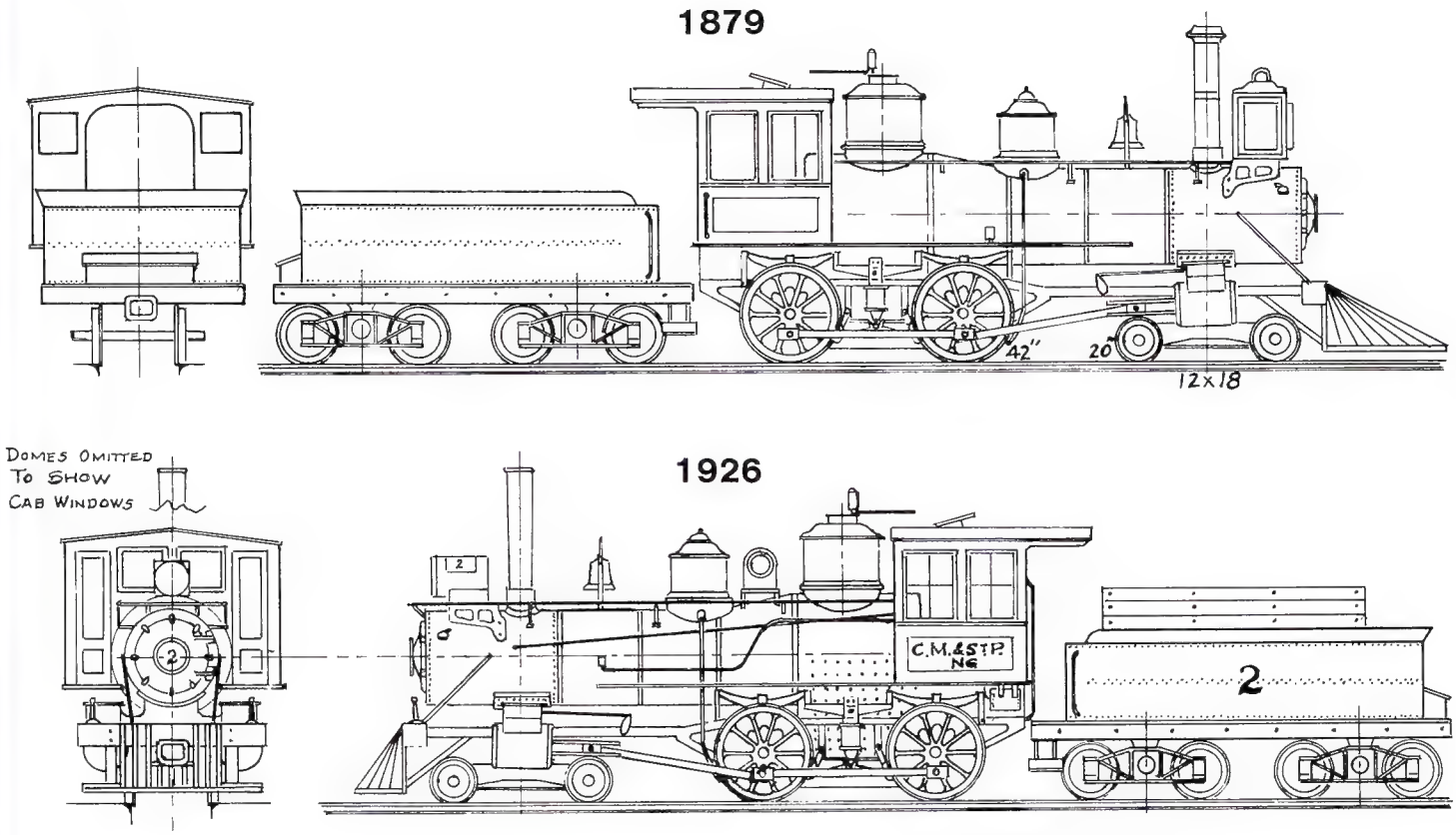


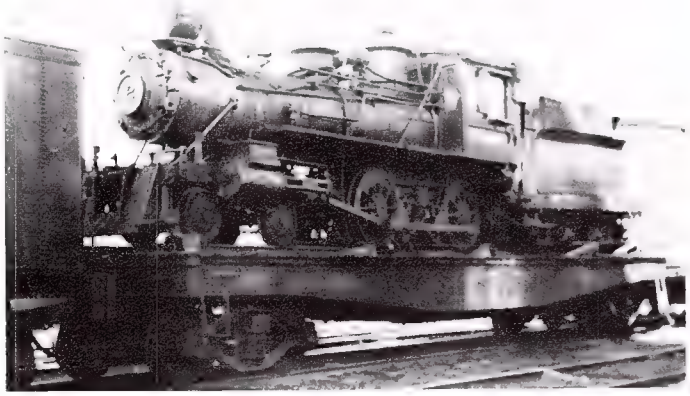
#1 on the turntable at Cascade. Bellevue & Cascade narrow gauge. *Collection of the Iowa State Historical Dept./Div. of the State Historical Society.*

BELLEVUE & CASCADE NARROW GAUGE BRANCH OF THE MILWAUKEE ROAD PITTSBURGH LOCOMOTIVE

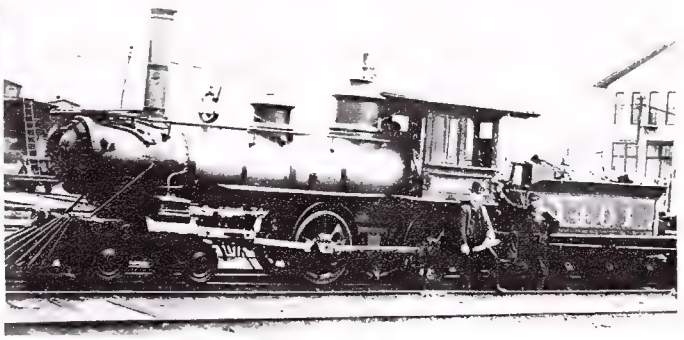
DRAWN JULY 1954, A. LEE, REDRAWN & INKED 7/17/78



Scale 3.5 mm = 1 foot



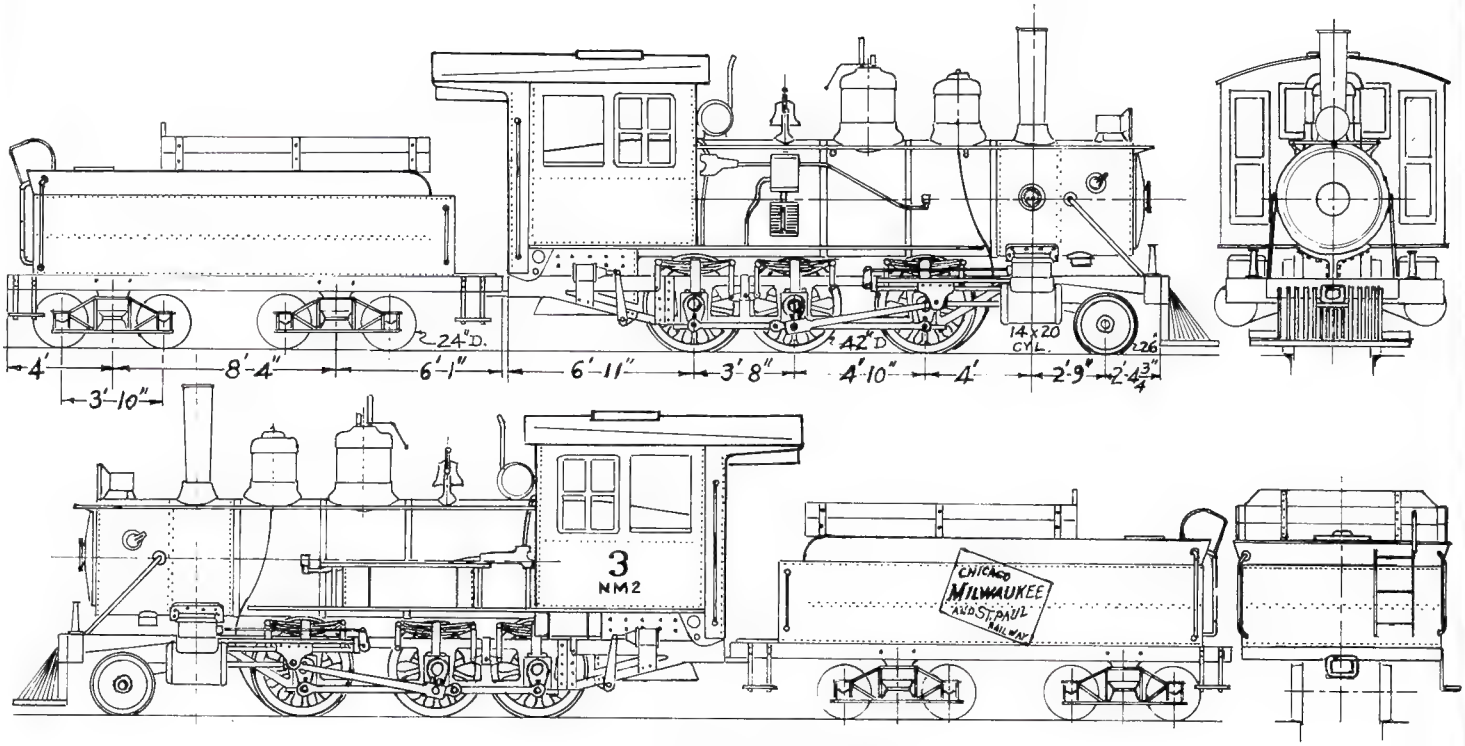
#2 on its way to the Marquette shops (North McGregor, Iowa) for shopping. The flat car and locomotive were set out in a round-house stall and a plank platform built on both sides level with the flat car before the repair work was started. Original #419 (C.C.D.&M.); renumbered #1408, April 1899; renumbered #1401, May 1910; renumbered #2, December 1912; scrapped August 1926. "Sic transit gloria" *Collection of Albin Lee.*



Three Pittsburgh engines were purchased in 1879. Two were used on the Bellevue & Cascade. The one shown above was used to haul the transfer table in the Milwaukee shops. C.M.St.P.&.P.R.R.Co. *Collection of Albin Lee.*

BELLEVUE & CASCADE NARROW GAUGE BRANCH OF THE MILWAUKEE ROAD
#2, BALDWIN #18884 BUILT 4-1901, ORIGINALLY #2 C.&T.RY.
#3,BALDWIN #32715 BUILT 2-1908, ORIGINALLY #1 C.&T.RY.

67,160#WEIGHT IN WORKING ORDER
14,280# TRACTIVE EFFORT
180 P.S.I. BOILER PRESSURE
5 TONS COAL, 1600 GAL. WATER
DRAWN APRIL 1954, A. LEE REDRAWN & INKED 3/16/78
CATSKILL & TRANNERSVILLE DATA FROM TED COLLINS, JR.



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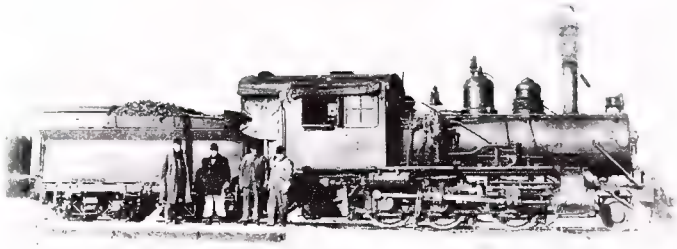
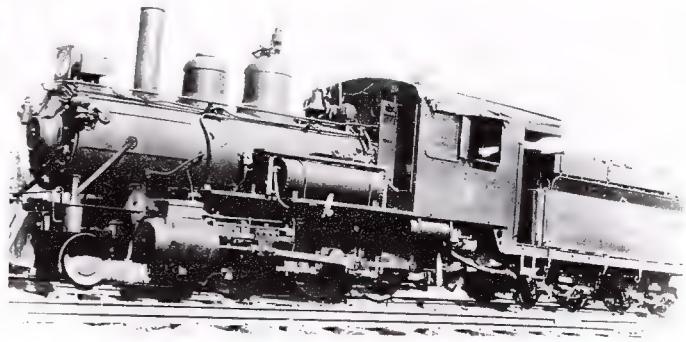
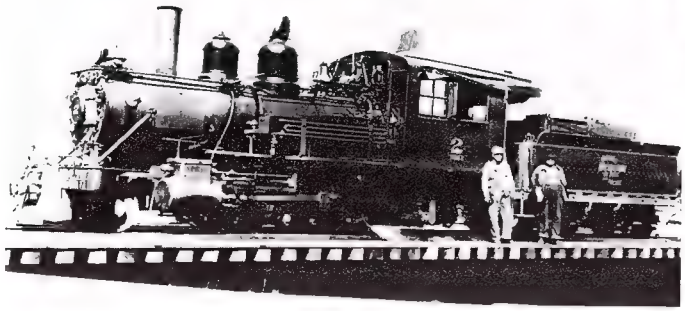


◄ #2 on the Bellevue & Cascade narrow gauge. This picture must have been taken shortly after the Milwaukee purchase as the stencil which was adopted Jan. 1928 has not been applied. Left to right: - Walter Graham, Conductor; Richard Sullivan, brakeman; Charles Spielman, engineer; Michael Galvin, fireman. *Collection of Iowa State Historical Dept./Div. of the State Historical Society.*

► #3 Bellevue & Cascade branch of the Milwaukee road sometime after Jan. 1928. Baldwin #32715, built Feb. 1908 for the Catskill & Tannersville Railway as their #1. Purchased by the Milwaukee in 1928 and renumbered #3. *Collection of Albin Lee.*



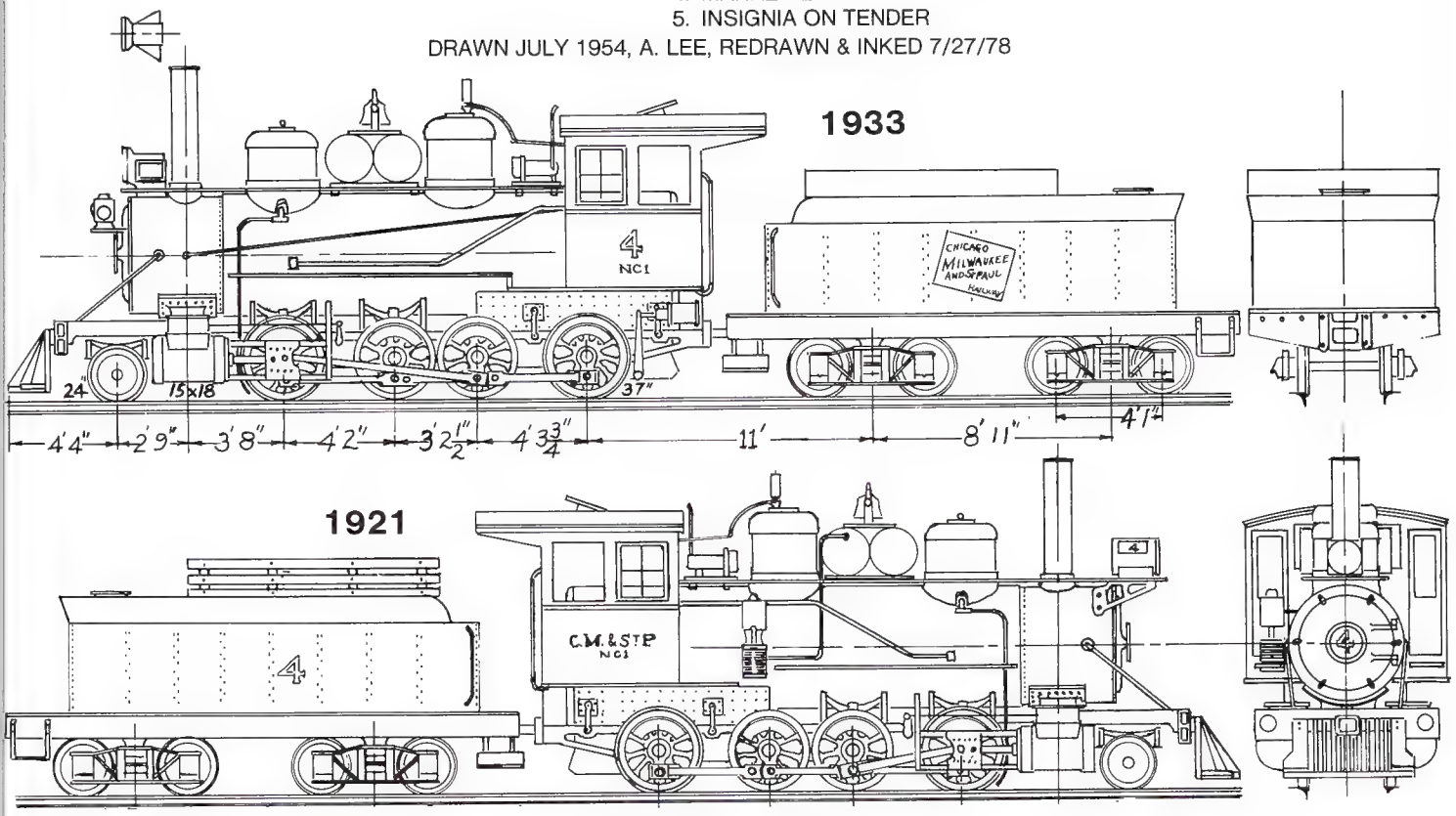


◄ #2 Bellevue & Cascade branch of the Milwaukee road sometime after Jan. 1928. Baldwin #18884, built April 1901 for the Catskill & Tannersville Railway as their #2. Purchased by the Milwaukee in June of 1928 and retained the #2. *Collection of Albin Lee*

COOKE #1502 — D.S.P.&P. #67 — C.&S. #55
BELLEVUE & CASCADE BRANCH — MILW. #4

NOTE DIFFERENCES: 1. MAIN ROAD ON THIRD DRIVER
2. HEADLIGHT — STYLE & LOCATION
3. COAL BOARDS
4. MARKER LAMPS
5. INSIGHNIA ON TENDER

DRAWN JULY 1954, A. LEE, REDRAWN & INKED 7/27/78



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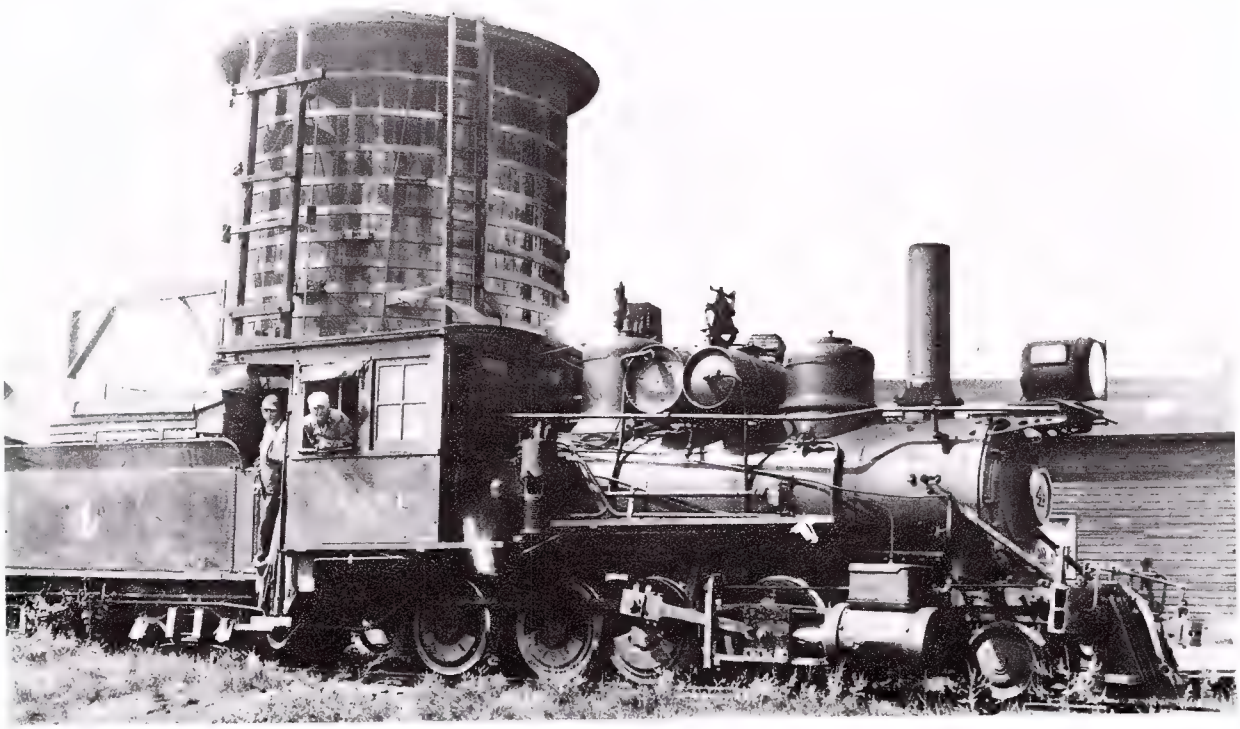

#4 at Cascade 1921. Originally #67 on D.S.P.& P. renumbered #216 in 1885. Retained #216 for Denver, Leadville & Gunnison became #55 in 1899 for Colorado & Southern. Milwaukee Road purchased August 1918 and renumbered as their #4. Left to right John Fuest, fireman and John Benzer, engineer. *Collection of Albin Lee.*

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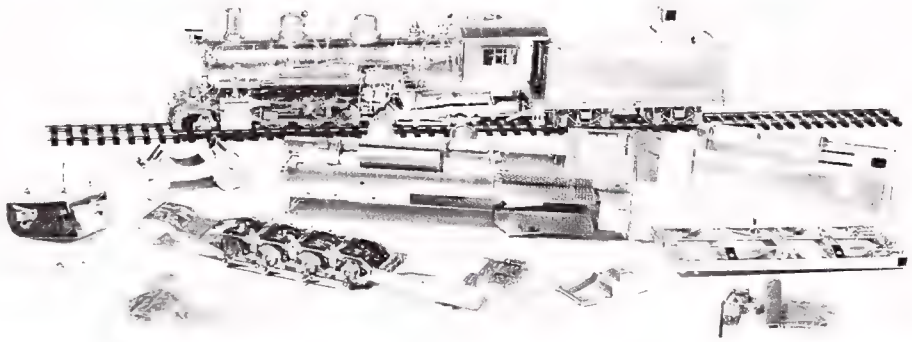

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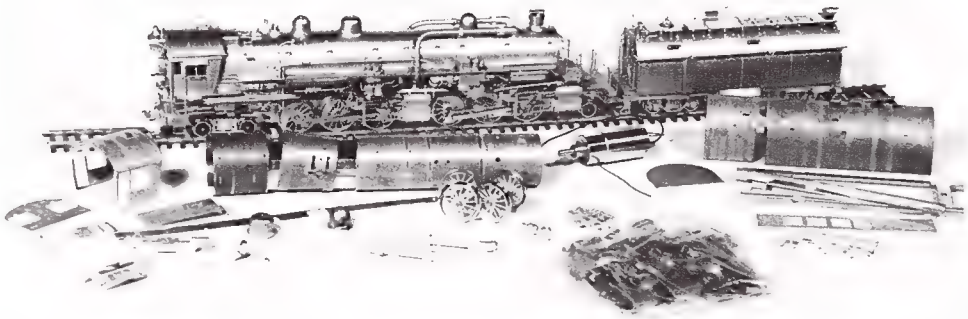

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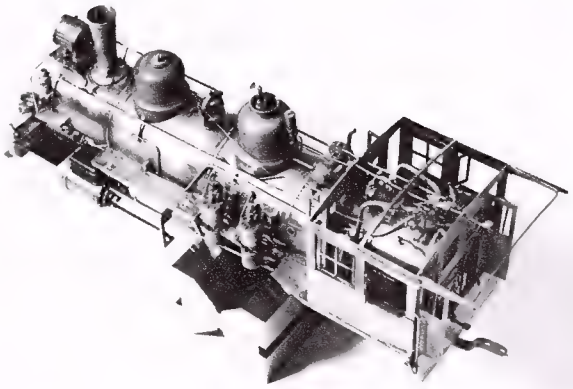
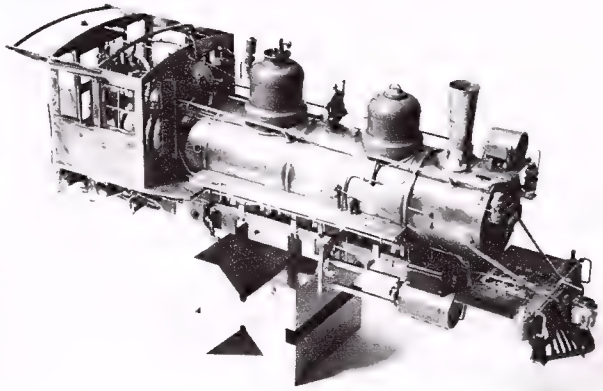
Finescale ON3 Rebuilding Techniques

Part III: The Balboa C-19 Becomes RGS #41

by Kelley Morris
Photos by the author

In Part I of this series, which appeared in the Sept./Oct. issue of the **GAZETTE,** *the author introduced his series on updating older imports to today's standards. Using the Balboa C-19 as an example he discussed the use of the prestolite-type torch and other soldering techniques. He described the disassembly of the locomotive and the reassembly of the boiler. In Part II, which appeared in the March/April issue of the* **GAZETTE** *the author described the detailing of the cab front, the air pumps, running boards, and other superstructure details. The series will run in each issue until completed.*





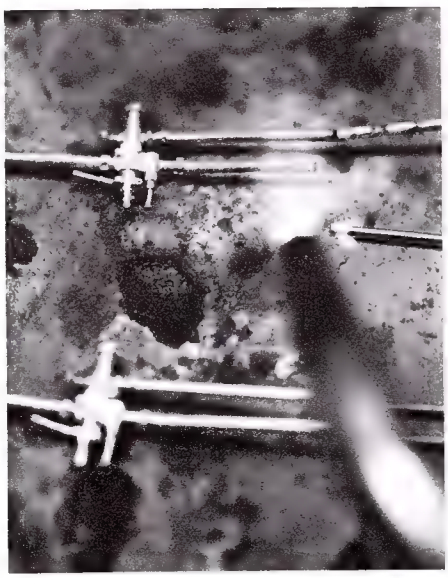
Step I — The Cab Details

With the major boiler detailing complete forward of the cab, the balance of the superstructure details become the focal points. Major components in the cab are the injectors; backshop #L1-066, the turret; BS #ST-050, firebox door; BS #CD-063, lubricator; BS #CD-055, throttle quadrant; BS #CD-065, brakestand; BS #CD-399, independent brake; BS #CD-340, seats; BS #CS-052, reverse quadrant; BS #CD-067, water gauge; #CD-058, and gauge cocks and funnel; BS #CD-079. Adhering to the policy of applying the major pieces first, the turret and firebox door are cleaned and sweat soldered into position. Note these positions on the accompanying photographs. It is advantageous to silver solder the air pedal assembly onto the firebox door casting before physically joining the door to the backhead. Drill a #76 hole into the left side of the central rectangular box in the pedal assembly to accept the air supply pipe further on in the assembly sequence. After cutting the sprue on the base of the turret to about 3/32 inch length, anneal the part. This process tends to relieve the dense molecular compression of the casting (i.e., softens it) and will allow some reforming of the globe valves to better represent the prototype positioning.

Bring the turret to a *dull* red heat in subdued light and, after waiting a few seconds to avoid any possibility of thermal shock fracturing, quench the piece in the Sparex solution to remove copper oxides. Once clean and dry, consult the photographs and twist the globe valves for the blower and governor valve feed lines approximately 90° toward the left side of the turret. Be sure to use extreme care in this process and keep the axis of the valves on line. You only have one shot at these. If one or both twist off, silver solder them into the correct positions on the turret base and pickle. Having achieved the above, sweat solder the turret onto the boiler.

Next come the injectors. Since all three pipes on the castings are too short for prototypical application, extensions must be attached to each. Mike both water pick up (rear) and drain (front) pipes and carefully silver solder lengths of the appropriate brass wire to each. These measure .045 and .040 respectively. I have found it easiest to do this by first; fluxing both ends of the intended joints, second; applying a bead of solder to each wire, and third; holding the wire to each attaching point and flowing the solder from the wire to the cast pipe. Be sure to have both ends flush, and use *only* enough heat to flow the solder. These wires melt easily, so gentle use of the #1 tip is advised.

Before insertion of the injectors into the cab, three other steps must be done. Assuming the injectors have received enough heat in the soldering process to anneal them (if not, this is step 1), cut the hex end from each turret feed pipe (step 2), and third, drill clearance holes for each of the lower pipes through the cab floor, having measured first to achieve the proper location.



Soldering the injector wire extensions. I suggest the use of a #1 tip and a small amount of flux.

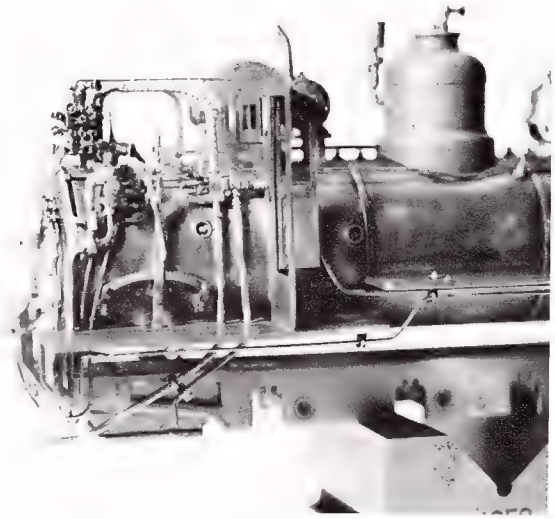
The injector installations themselves are rather easy. Consult the photos and run the boiler check lines (.045 wire) from each check valve, back along the boiler and into the appropriate holes in the cab front (consult the cab front diagram in Article II). Allow no more than 3/64 inch to protrude through the back of the cab front on each. Drill the front of the injector with a .045 hole, and sweat a small solder ball into this hole. Now feed the long injector pipes through the cab floor, and locate the front of the injector on the wire stubs (boiler check lines). Flow a small amount of solder around these pipes where they pass through the *bottom* of the cab floor. Now focus the heat on the check line/injector joint and flow the solder already placed. Remember, each of these joints should be fluxed.

The turret feed (wrapped) lines are now formed. The reason for cutting the ends off will become apparent, as these lines generally rise straight up from the injectors about 2 - 2½ feet before turning back in a smooth curve to the two side globe valves on the turret. Cut sufficient lengths of wrapped pipe (BS #WP-175)

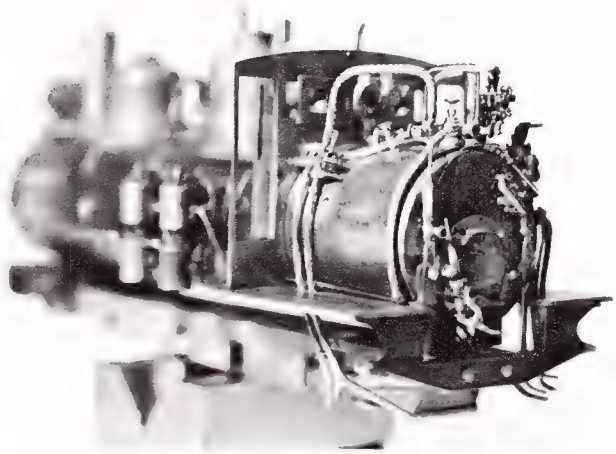
Placing solder ball with the probe while attaching the tri-cox and funnel.

to extend back and down to the valves. Since the backhead requires only one more major heating, now is a good time to do it. Drill holes for and place the tri-cox and funnel in the right side and water gauge (BS #CD-058) in the left. Position the boiler vertically to avoid any unwanted shifting of the firebox door or backhead. Screwing the frame temporarily to the superstructure will also help keep things in alignment. Drain lines for both and a feed line for the gauge may also be added at this time, or silver soldered in before assembly to the boiler. Be sure to drill the appropriate holes to effect strong joints, rather than butt soldering the wires to the castings. You may wish to wait on these altogether, applying them later with a pencil-type soldering iron. I use a 40 watt unit for this type of work.

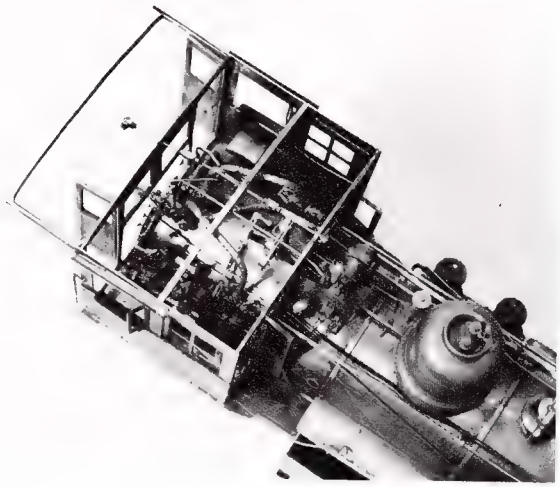
Now come the lubricator and throttle quadrant. The lubricator requires a single



The right side of the cab ready for the sides and backs. Note the piping locations, washout plugs, etc. The injector pipes have been formed at this time.



The left side of the cab ready for cab back and side installation.



The cab from above showing plumbing locations and cab door placement.

hole and is positioned behind the turret. Check the location in the photos and solder in place. The throttle quadrant requires only a single hole for the throttle pivot. Place the gauge cluster on the boiler and solder in place. A "third arm" (mentioned in an earlier article) is useful here. Drill the pivot hole, insert the throttle and solder in position. I normally drill a .040 hole in the rear center of the steam dome, position the domes (these are by John Pilling, Abington, Mass.) and finally add a length of .040 wire between the stub end of the throttle rod casting and the dome. This is done with the iron, and only need be soldered at the cab location. Washout plugs; BS #WP-150, may be placed in the boiler now if desired; one on each side, approximately half way back just above the scribed seams.

At this time, it is wise to attach the reverse quadrant. A slot must be cut through the cab floor on the engineer's side, approximately ¼ inch long and about ⅛ inch wide, parallel to the boiler. This is centered approximately ½ way back on the cab floor. Consult Maxwell's drawing and accompanying photos for details. Adjust (i.e., bend) the casting as necessary for proper fit, insert in slot, and with the engine on its side, solder in place. A single solder ball at each bracket location should suffice. Allow the lower end to extend freely through the cab floor for the time being. A nice touch is a fitted .010 patch over this slot, (cut to fit around the lower reverse lever) duplicating the sheet metal piece in the prototype. (There are many other areas, primarily on the cab front, where details of this type can be added, such as around pipes, etc.).

The final major components added to the boiler itself are the brake stands and appliances. This article will concern itself with a representational application of these items and if you've gotten this far without grief, you should have no trouble installing them. Those wishing total detailing should consult the "Straight Talk About Bent Pipes" series in the **GAZETTE**. Caboose Hobbies of Denver, Colorado now markets detailed photo sets. Write to them for information.

I should note that I have recently completed isometric backhead drawings of eight of the eleven D and RG narrow gauge engine classes, and these are being marketed by Precision Scale Company in their cab detailing kits. They show locations of all cab fittings and the kits come complete with all necessary castings. These are comparable to the Backshop pieces. Write P.S.C. if interested.

Both the CD-339 and CD-340 castings again do not provide enough length for complete prototypical application of piping through the cab door, so mike each pipe on the castings and add wire (usually 2 inch is enough on each) as before. Holes must be drilled for each pipe in the cab floor. In addition, the CD-339 E-6 casting has a bracket cast in place which will require sweat soldering to the boiler. The pipes should be inserted through the cab floor, and soldered as in the injector installation first, though. While the photos are the best reference as to exact locations, note that various ancillary pipes are attached into the air system at the brake stand location, and serve a variety of purposes. A good representation of the bulk of these may be achieved by annealing the brakestand castings CD-339 and CD-340, reforming the pipes to flow backwards (along the boiler), filing the (cast) detailed "T" fitting from the CD-339 left-hand pipe, adding a Tomalco "T" fitting in its place, and then forming the pipes down and out of the cab floor. The center pipe on the E-6 goes straight out to the running board edge to join to the train line. All others are formed to flow back under the cab support to provide tender connections. The CD-340 should conform to these bends also, but sit ahead of the CD-339 on the boiler. The left hand pipe should be removed from this casting. No other changes are necessary on it. Once these two castings are in place, a .030 wire can be brought from the new "T" towards the turret, and a .025 train line routed through the running board brackets from the previously mentioned point forward to the pilot deck.

The air functions added at the "manifold" point include the air pedal feed pipe (for the firebox door), the sander feed pipe, and the upper smokebox feed line. (notice that the lower elbow has been plugged, so it is simply left alone. All these lines are .015 wire. (If the engine you are modeling shows two lines, the other should be formed to return rearward, under the running board). Many of the "C" class engines would also use this common "manifold" point in the cab for the air bell feed line, though this particular engine has none. Rather than trying to explain the attachment of each of these, I suggest you consult the photos included in the article for exact placement. Note that each separate function except the smoke box feed is controlled by a globe valve (BS #GV-095) — (an airbell installation would have two — one for each person, positioned on a "square loop" around the turret, made from .015 wire). Add elbows, etc., as desired. Normally, these pipes were heated and formed for subtle curves and elbows were used for right angle turns. The less chance for air leaks, the better.

The final boiler fitting added is a glove valve; Kemtron #98. This is soldered into the top of the boiler (check photos), and is the attachment point for the water gauge feed line. It would be wise to solder this in place before the aforementioned wire work. Add a .020 wire between the gauge and valve.

Four pipes must be placed to button things up in the cab. First; the generator feed pipe — through the cab front. Use .020 wire here. Second; the blower line:

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form this line from .025 wire and note that from the attaching point on the left side smokebox fitting it goes back under the running boards, through the cab floor (a hole must be drilled) and up along the backhead to the appropriate turret globe valve. The section from the cab floor to the turret can be made with the WP-175 wrapped pipe. Cut the bare .025 wire off just above the cab floor, drill the lower end of the wrapped pipe .025 and solder in place. Next, add the governor feed line with the same technique; wrapped pipe to the back of the cab front, drill, and leave temporarily at this point (the other end is soldered to the ramaining (reformed) globe valve on the turret). Finally, form the lubricator feed line from .028 wire, and attach; from the remaining turret valve to the top of the lubricator.

As a supplementary touch, you might wish to add a "T" fitting on the left side check valve line just ahead of the cab front (obviously, *before* the injectors are installed). From this "T", run a water pipe (.025) over the side of the boiler to the running board, back through the cab front and along the boiler to the rear of the cab. This terminates in a globe valve and hose and serves on the prototype as a deck plate wash down device, allowing the fireman to keep his work area clean.

Those skilled with a soldering iron might wish to add .005 gauge lines. Consult the "straight talk" series for the proper locations.

Completion of the cab is relatively simple. If you have not already done so, remove the two rivet-embossed plates from each cab side and replace the windows and arm rests if they've been loosened. Add a .015 x .035 rail the full length of each cab side even with the bottom of the window openings.

Reposition each cab side, and place solder balls in each corner on both the cab front and floor. Having fluxed the joints well, flow the solder with a gentle use of the #2 tip, being careful to direct your torch *away* from all that careful detail work! The cab back, with rivet detail smoothed off, is mounted in the same manner. Remember that the door placement is: engineer's to the inside, and fireman's to the outside (silver soldered as before). The cab seats are now added. Cut the pedestals and backs from the GS # CS-052 seat castings and discard. These "deckless" engines use a drop-type seat, hinged at the cab side — not a stanchioned seat as the larger "K" series do. Position the remaining part, with the bottom strap detail towards the side, and solder carefully in place about 24" up on the cab side. Use of the "3rd arm" and heat sinks (i.e., wet paper towels or tissue, etc.) will aid in a successful job here. Heat from the outside. Note that P.S.C. # PSSH 8050 is the equivalent, and eliminates the cutting, as it is a folding type seat specifically.

Although the cab roof may be resoldered in place, it is often desirable to make it removable (otherwise why did we go to all this work, right?). My normal procedure is to solder two .020 pins into drilled holes in the top centers of the cab front and back. Matching holes in the roof will locate the roof adequately and eliminate the need for bulky clips or screws. Leave the pins long, install the roof and file the pins off flush. Additionally, 1/16 inch square formed roof rib, added between the cab sides, in front of the roof hatch location, provides more complete detail and an attaching point for the electrical conduits, bell and whistle cords, if desired. The conduits, of course, provide electricity for the cab lights; normally positioned at the gauge cluster, the lubricator, rheostats (at the top of the engineer's side wall, above the seat) and water gauge. If you wish to include this detail use .025 wire and Kemtron #1098 junction boxes (see photos). If you're *really* crazy and using constant lighting and sound, these lights, as well as firebox glow, headlight and marker lights may be included. Consult P.F.M.'s micro-motor installation sheets for this information.

The final touches are as follows: using the Kemtron #1044 (closed) or P.S.C. #PSSH-8572 castings (working), install

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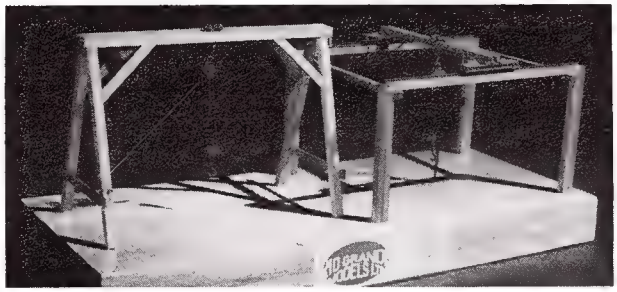

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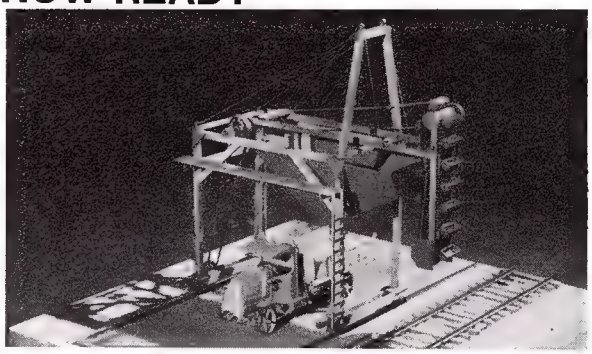

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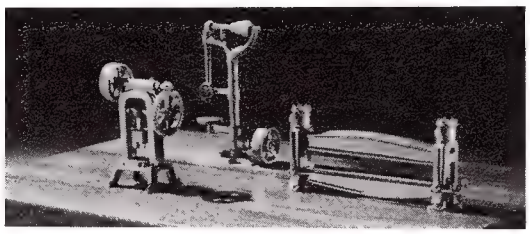

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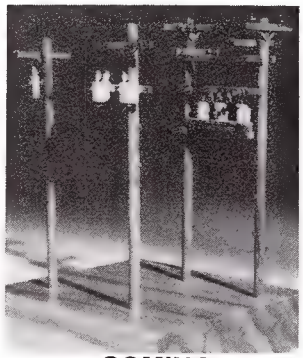

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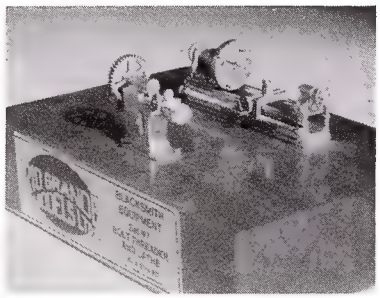

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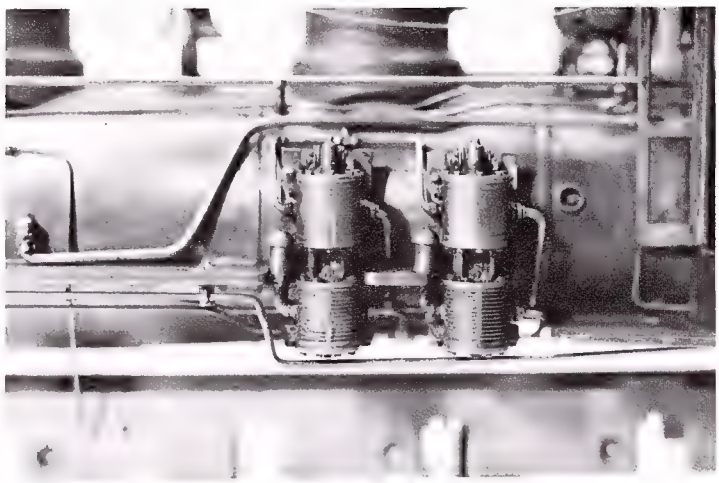
The rear of the cab showing the deck plate details . Note the door placement and cab modifications.



The pump details. A minimum of solder is used everywhere.

the roof hatch. Your choice may require some trimming of the roof sheet metal. Form the cab curtain rail from 1/32 inch x 1/16 inch brass stock (per the photos) and install. Note that flat tabs are provided where this piece attaches to the cab back for added strength. You will find it necessary to anneal the stock to enable you to bend it to the correct contours. Finally, cut and form a rain gutter from .010 shim brass and carefully solder (with the #1 tip) to each cab side above the window. Attach cab hand rails of .025 wire and this area is finished.

While there are numerous other things you could add to the cab, the above information should, properly followed, give you an above average detailing job in your cab, and build your confidence for more involved projects later on. P.S.C. #PSDR-1033 whistle actuating lever, shim patches with rivet detail around each pipe, cab support rods; PSC # PSH-4174 or scratched equivalent, blow-off cock actuating lever and cab curtains are a few that come to mind.

As a side note; before beginning construction you might go so far as to consider the time of year that you're modeling. For example: if you are portraying Colorado in the winter or fall, it would be rather incongruous to model your locomotives with flung open doors and roof hatch and no cab curtains. Your little men would freeze! Cab curtains are a nice touch regardless, though, and sheet lead milled to .005-.010 will do nicely for this. You may wish to cyanoacrylate them to the curtain rod hooks though, as a torch or iron could make puddles out of them rather quickly.

Step II — Finishing the Superstructure Details

At this point, the final details may be added. About 1½ to 2 hours will be required. First, add the boiler handrails of .030 wire. The round knobs at the forward ends are made by soldering extra Kemtron handrail posts to the rail ends, nipping off the posts themselves, then filing the balls smooth. Next comes the remaining pump piping. Consult the accompanying photos and "Straight Talk About Bent Pipes" in the September, 1976 **GAZETTE** [out of print]. The *pump exhaust lines* run forward under chest casting. *the governor pipes* are joined with elbows and a central "T" fitting (both Tomalco), then run back to join the stub end of the governor line (previously mentioned) at the cab front. Use the iron carefully for elbow placement, etc. The *air discharge pipes* are joined through a "T" run forward under the running board forming a cooling coil, and then backward and down under the cab to a gladhand attaching point. This line may be soldered against the injector pipes where they touch for added strength. Sizes for the above pipes are .035, .025 and .030 respectively. Backshop governor HAP-076 is used.

A generator drain of .015 wire is now routed from a drilled hole in the right side of the generator through a hole in the running board and soldered in place. The front sander air feed line is formed of .015 wire and connects both sander fittings on each side of the dome. It is attached at the top of the boiler through a "T" to the already placed line from the cab. The sanders themselves are .020 wire, and pass through the running board holes. Use the #1 tip at the board and the iron at the fitting locations. If you wish a fully prototypical installation, curve the sander pipes around the front drivers but watch the clearances carefully.

The front boiler step hand rail is made of .025 wire and soldered in place; use the iron on the step and #1 tip on the headlight bracket. Next form a 5 inch diameter (scale) ring on the end of a .020 wire. This becomes the cylinder cock actuator rod, and is routed through the cab to the smokebox area for later attachment to the frame lever. Solder is only needed at the right side boiler bracket location.

Two items remain: the boiler conduit and the deck plate. The main conduit is .025 wire. It runs from the cab front junction box straight down to the boiler, then ahead along the jacket to a BS #JB-043 junction box soldered to the smokebox as shown. A .020 wire from the underside of the generator to a Kemtron rectangular junction box on the conduit is next. This item sits directly alongside the generator. A .010 wire (leading to each marker) is soldered to the smokebox location. The headlight wire is attached to the right side marker wire. Be sure to drill out the cast holes in each casting before attaching them and inserting the wires.

Attaching the deck plate completes the superstructure. Drill two #71 holes in each cab support web, approximately spaced 1/16 inch vertically and 1/16 inch from the inner face of the support. Make a U-bend of .025 wire for each side, insert and solder in the holes. Temporarily re-attach the drainbar. If you wish a more prototypical engine to tender spacing than Balboa provided, now is a good time to re-drill the drawbar. Hook up the tender and measure length and width requirements for the plate, swiveling the tender to make sure no possible hitting of details exists on either engine or tender. Having trimmed the plate (Kemtron raised diamond plate or .015 equivalent) to size, cut two notches deep and wide enough to clear the U-bends. A wire the length of the plate provides the vertical swivel. Solder it only on the ends once it's inserted through the wires. There should be front clearance also. Once the engine is painted, a thin strip of styrene will be needed under the deckplate to eliminate any possibility of shorting.

Part IV will deal with the engine frame modifications.

The Bane of the O Scale Modeler

by Mic Greenberg Photos by Bob Brown

Every "O" scale modeler, regardless of the era modeled is faced with an unique 1:48/¼ inch dilemma. And that is the easily noticeable lack of quality automobiles and trucks in this scale. This is a scale that lacks little in terms of railroad equipment, tools and machines, appropriate structures, electrical gear and all the other accouterments that make model railroading the significant attraction that it is.

In *Walther's "O" Scale Catalog* under vehicles we find kerosene locos, railbuses, velocipedes and handcars. The only non-railroad related vehicle is the Wheel Works' 1934 Ford Pickup. A rather slim selection for the diorama builder or serious "O" scaler with a nice layout. Nothing is more disconcerting to this reporter than to see a really fine collection of railroad equipment attended by a gross lump of out-of-scale hodge-podge pretending to be a Mack truck or period auto.

We all know it's just not fair! Check out the array of HO gauge stuff under the same category in the Walther's catalog for 1:87. Pages 83 through 87 of the 1976 edition are crammed with cars, trucks, trailers, wagons and wheels of model vehicles. Jorden alone accounts for fifteen different "Highway Miniature" types and styles, and this doesn't include an additional five wagon models. Think of those *three* fire engines the lucky HO scale person can use in a variety of settings.

Well, although this seems to present a bleak picture for "O" scalers, the story doesn't end here. There are three time zones for which *some* good models of cars and trucks can be built. They are 1910 to 1920, somewhere around the middle of the 30's and the middle to late 40's. With the Wheel Works' ¼ inch Ford Pickup many 30's commercial type vehicles can be scratched. Bandai military machinery in 1:48 is another source for parts from which 1940 and older type trucks can be created. As for this modeler's favorite time, the early 20th Century, there is a rich and varied opportunity to build a number of exceptionally detailed and visually satisfying trucks. This article shall address itself primarily then to vintage trucks for the years 1915 to 1916.

If you are like many discerning modelers you may find it difficult to begin a model project without reference material. There is nothing like good plans with straight-forward dimensions for that confident start. For the trucker of 1915-1916 there is a definative publication called the *Handbook of Automobiles 1915-1916* (Dover, 1970). No really serious work can begin before this book is procured. Another quality package is the Armitage plan sheets representing four trucks of this era. Available from Kemtron.

The Dover book has approximately 80 to 90 trucks illustrated with critical dimensions and additional specifications, such as: paint scheme, cylinder alignment, tire types, etc. There are trucks of every size and function, including some fascinating electrically driven drays. There are dumps, tankers, stake beds, fire engines and pickups. This reviewer has constructed five to date and finds each new one even more rewarding and exciting than the last.

Now the real joy in constructing these beauties is the innovative lengths one can, and must go to, to get a really fine model. All areas of the hobby are grist for the trucker mill. Being a ¼ inch modeler can be very advantageous because the other scales, such as S, HO, and N are merely "O" scale supplies in greater dimensional depth. For instance, Evergreen Scale Models' strip stock 1 x 3 in HO can be nicely used as ½ x 1½ stock in "O". Kemtron's assorted airtanks in HO for locomotives make very fine gastanks and a Grandt Line HO stake pocket makes a perfect fit on the bed of an "O" scale stake truck.

The most difficult areas to fabricate (at least for most modelers without elaborate shop facilities) are the bonnet, fenders and wheels. Here, Renwal kits provide very shapely and acceptable parts. The Stutz Bearcat and Mercer equipment can replicate an amazing assortment of early truck configurations.

At this time the market is bulging with details and accessories which with some clever application and reapplication will assist you in creating an unique vehicle. Many existent catalog items can have surprising and unexpecting results. Grandt Line box car door hangers make beautiful spring to chasis connections. Cal Scale's Pyle headlights with M.V. lens are highly suggestive of old time truck and automobile acetalene lamps. HO scale locomotive deck braces can be used as pivotal point supports for trucks with windshields. The only limits to the list of possibilities is one's imagination. The search and research to align needed parts with wood, brass and plastic manufactured products provides a terrific challenge and is just down right enjoyable.

Don't you think it's time to add that bit of realism to your latest scene or building? Locate a dusty Jeffrey's two-ton truck and tractor at the tipple. Back a Peerless five ton open bed to that loading dock or have a General Vehicle Company heavy electric dray pull up to a platform to pickup those materials spotted there for delivery. How about it?

Photos opposite:

1. This 1915 Jeffrey's quad two-ton truck and tractor dumper was built primarily from sheet and strip styrene. Note the emergency brake, a reverse quadrant lever from The Back Shop.

2. The Wickman Farm Supplies stake bed is really a composite truck. It features a front-end design of the 1916 Peerless two-ton with stake bed and rear end taken from the Reo Motor Car Company.

3. This fragile steamer is a fabrication of the author's. It was built using the Renwal hood, wheels, fenders, and modified underbody of a Stanley Steamer.

4. Looking very much like a cross between a Kissel and a Vim, Imonsone's panel is covered with tiny specks of paint. Here we find a vehicle with a Stutz fender line and a Mercer Bonnet, all taken from ¼ inch Renwal kits.

5. Electric cars and commercial vehicles were still very much in evidence in 1916. Here we have a G.V. Electric two-ton replete with dual rear wheels and chain drive.

6. The partial prototype for this M-O-W truck is a 1912 Mitchell railcar, see **GAZETTE**, July 77 issue, page 71. Scratch-built of styrene and brass it uses Grandt Line springs, wheels and brake system (rear wheels).

7. Possibly the author's most ambitious truck project to date is the Stambough Wrecker. The cab and chassis are Peerless while the boom, boom gallows, and plow assembly are the model trucker's own design. The plow can be lifted and lowered using a readapted Kemtron HO harp switch stand.

8. Here they are ready to go. Still absent among their numbers, but on the shop agenda: a tanker, a coal delivery F.W.D., and perhaps a pickup truck for light deliveries.

(Note: Unfortunately the 1:48 Renwal Car kits are no longer available. However a diligent search of shops might scare some up)

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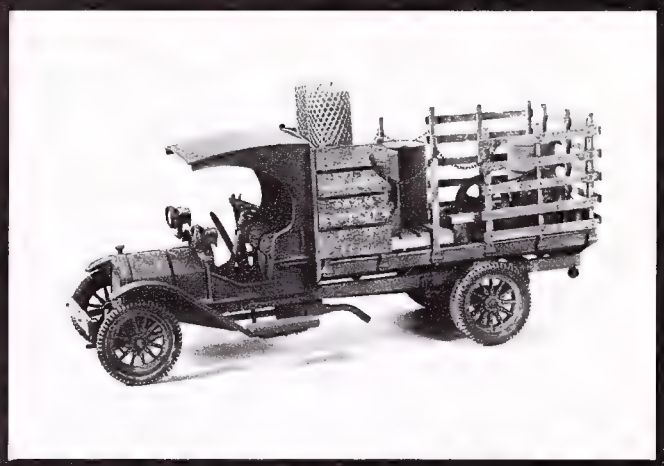

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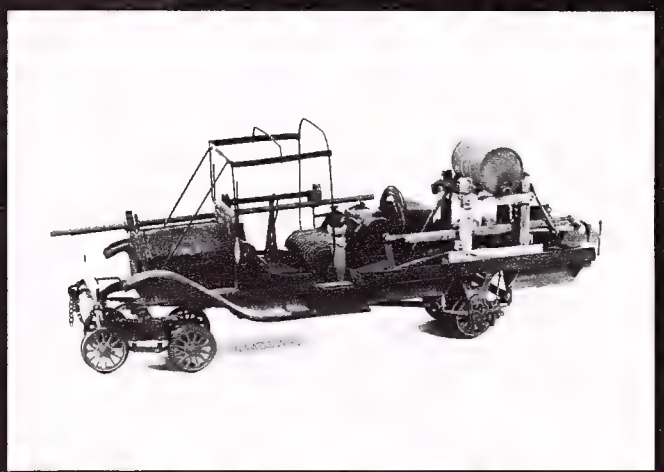

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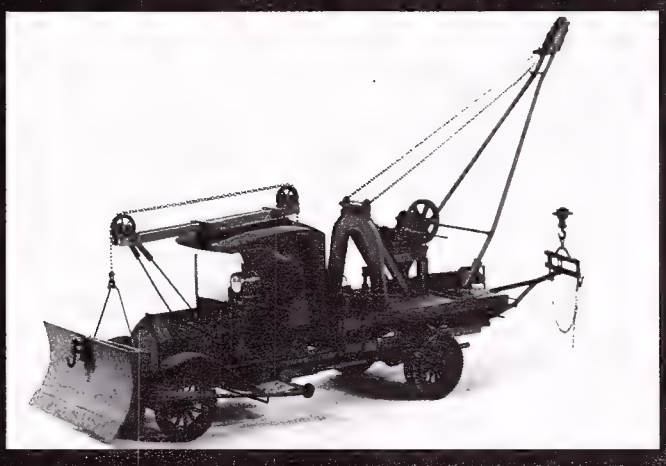

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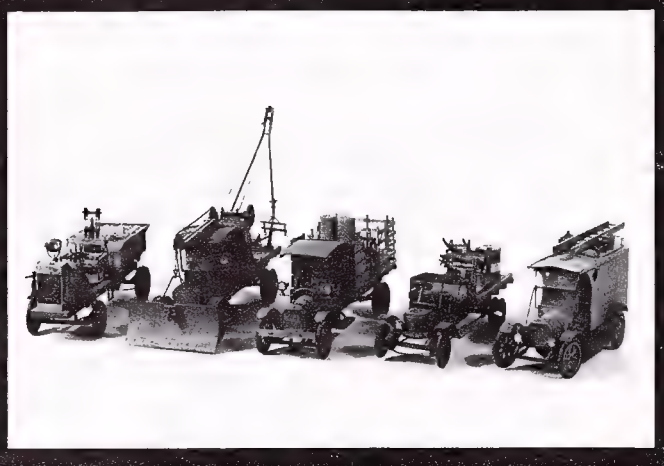


8

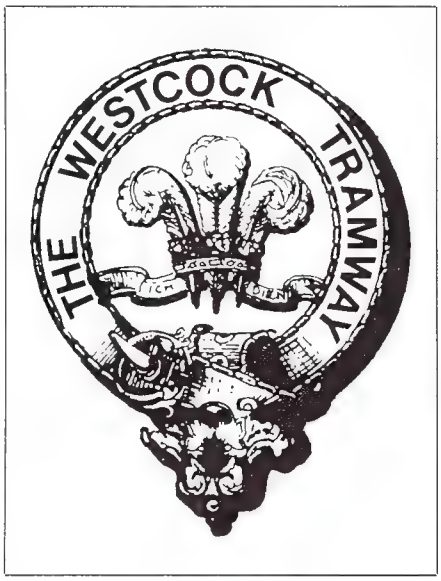
16mm Narrow Gauge

by Peter Mesheau
Photos by the author

Everybody seems to be looking for alternatives these days, including narrow-gauge modelers. I guess I am one of these: I got started in HOn30 inch and later moved up to On2. Finally I began looking for something a little more obscure, it was getting to the point where things were "crowded" in On2. Besides, I needed a scale that would accommodate my haphazard track-laying methods. The margin between success and failure was *too* close.

About a year ago I started constructing two-foot gauge models in 16mm scale. This scale, about 1/19, is just a hair larger than the L.G.B. line of models. By using O track standards (32mm) and locomotive mechanisms, I could get two-foot gauge. It certainly wasn't a new idea; a number of modelers in England have been producing excellent 16mm models since the fifties. One of the nice things about 16mm is that its bulky size makes it ideal for an outdoor operation. Even a reasonable indoor layout can be built in a modeling space of about 10 feet x 12 feet. Sorry, but you can't build a 16mm layout in a violin case.

Construction materials are very similar to those used in ¼ inch scale though construction techniques tend to be a bit different. In fact, they are very similar to the prototype; scale rivets and bolts are used to hold the models together. Don't get me wrong — good ol' white glue and an assortment of adhesives are used also. A home-built coach would cost about $15 to build (a 30 foot coach measures 18 inches long in 16mm), while four-wheel freight stock could be built for much less.

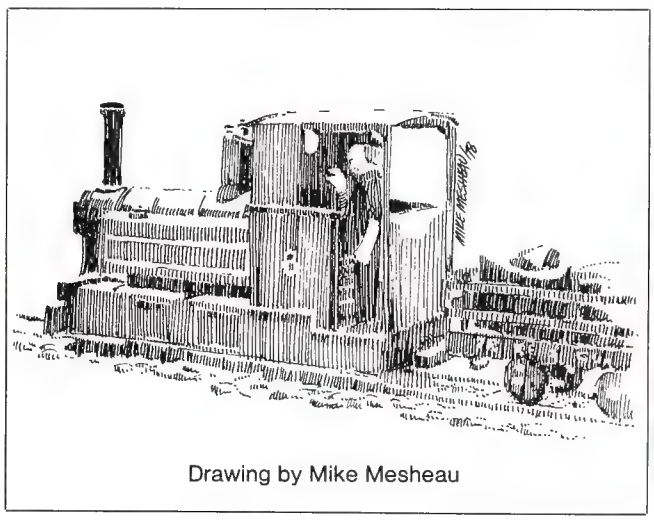


Power can be supplied from any of four sources: clockwork, battery, electricity, or live steam. Rumor has it that a few guys are using string, but that's another story.

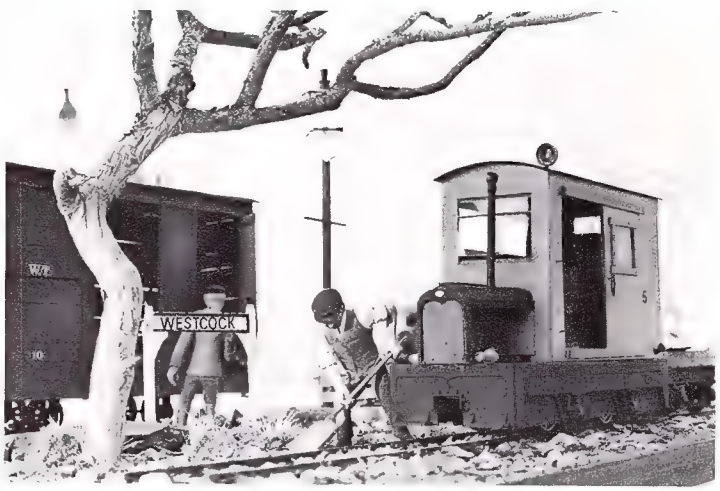
At present, I am working on a small indoor layout, The Westcock Tramway. Although operation is extremely simple, it should provide a reasonable run for my equipment. The layout will contain three distinct scenes, separated by ceiling-high hills. Code 148 rail is being spiked directly to individually-cut and stained pine ties. Structures will be made from carved dental plaster and stripwood. A station has already been completed from individual bricks.

I am now toying with the idea of constructing a few pieces of equipment to a scale of 1 inch to the foot. By using 32mm track standards, I would get 15 inch gauge — a gauge quite common to estate and industrial lines. Various doll house accessories could be used in this larger scale. Once the snow melts from the back garden, I will begin the outdoor version of The Westcock Tramway, a modest little line that will wind its way through flowers and rock cuttings.

Below I have listed a number of sources for literature and parts. This list is not complete, but it will give you a good start, should you decide to meddle in 16mm. I'd be happy to hear from any of you who have questions or suggestions.



Drawing by Mike Mesheau



Westcock Tramway railmotor #5 in 16 mm scale.

The charm of narrow gauge is apparent in this front end view of #5. The figure is a commercially available casting from the Merionith Society. They have quite a few available now.

A scale 1 inch equals one foot "Peat Moss Express" based on a Rushton Internal Combustion 12 h.p. locomotive. The model is built over a Lima O scale four wheel chassis. In one-inch scale, "O" gauge works out to 15 inch gauge which is ideal for very small industrial lines. Roy Link built the plastic parts and the author added the wooden cab.

A 16mm railmotor with trailer built over a Lima chassis. The radiator is from a Hubley automobile kit. Note the realistic track.

Equipment Sources:

- Archangel Models 43 Cook Lane, High Wycombe, Bucks HP137DY, England. (16mm live steam locomotives, parts, rolling stock, and kits. They offer an interesting little catalogue with photos for $3.00 U.S.A. (£1.50). These locomotives as well as a line of parts and books are also available from Westcock Models, 45 Essex St., Moncton N.B., Canada E1C 2Z7.
- Meridian Models, 27 Dartmouth Hill, London SE10 8AJ, England. (16mm bogie kits, white metal castings, aluminum wheels, etc. send a couple of International Reply Coupons for their list.)
- Gosling Locomotive Works, Pasture House, Wark, Hexham, Northumberland NE48 3DG, England. (16mm live steam locomotives and rolling stock. They even offer a Sandy River #6 for around $900, send $2.00 for their listings.)
- Merioneth Society, see address below. (16mm plastic castings, wheels, etc. Also one member produces excellent figures. These are available to members.)
- 16mm Society, see address below. (Will soon have castings available to members.)

Suggested Reading:

- *Narrow Gauge Modelling* by D.A. Boreham, published by M.A.P. Ltd., P.O. Box 35, Bridge St., Hemel Hemstead, Herts, HPI IEE, England. A new edition has just been issued.
- *Merioneth Mecury* published by the Merioneth Society. Write Mike South, 30 Anne Boleyn's Walk, Cheam Village, Sutton, Surrey SM3 8DF, England.
- *16mm Today*, published by the 16mm Society. Write Andrew Webb, 12 Varna Rd., Freemantle, Southampton, Hants SO1 3AG, England. $5.00 per year, U.S.A. (£2.50).
- Narrow Gauge Railway Society issues the *Narrow Gauge News* monthly and magazine four times per year. Write R. Pearman, 34 Giffard Dr., Cove Farnborough, Hants, England $7.00 per year, U.S.A. (£3.50)
- *The Pot Boiler* newsletter that appears periodically for 16mm modelers and owners of Archangel equipment. Write Dave Rowland, 35 Iverlane, Iver, Buckinghamshire S1091F England. Send two International Reply Coupons for each issue.
- English Model Press, *Model Railways*, *Railway Modeller*, and *Railway Model* Constructor. Articles on 16mm and suitable plans have appeared in these magazines from time to time. The 16mm Society has many of these listed.

A 1/4" Scale Fine Scale

The right hand side of the building shows the unusual roof line added to the model for interest's sake. The sh

Railshed Display

by Gary Nash
Photos by the author

les and exterior weathering show up well in this photograph.

I am completely fascinated with display construction. Display construction invokes such a never-ending variety of ideas, skills, techniques, and materials that I cannot resist attempting a display when a suitable subject presents itself. When Colin Emerson showed me a built up version of his self-designed HO railshed I knew I had to scratch build it in ¼ inch scale.

Since I changed the scale from HO to ¼ inch I was able to enjoy almost limitless detailing opportunities. I eliminated some parts of the original design and changed or added others. I decided to eliminate an outside workshop on the back wall and I raised the second story to break up the roof line, this gave the structure more possibilities allowing a loft door and upstairs interior details. The back staircase, small side roof over the workbench, sign and large side roof overhang were designed after the shed's basic construction had begun. I like to work with a flexible design rather than a fixed one so I can go with the flow of ideas that crop up during the early stages of building. Normally I build jigs for the wall construction. But, since this was not that large a building I built the wall frames by the tried and true method of taping wax paper over plans drawn on graph paper. I pre-stained the framing with Floquil Earth and Walnut wash. Then I glued the 2 x 4's and 2 x 6's in their proper positions. Once the wall frames were finished I put them aside and began on the color scheme for the exterior.

I chose Kappler wood for this entire project. It is not only great material but Kappler has a vast selection of sizes to pick from. Using 1 x 10's I soaked each piece in a solution of A-West Weather-It and let dry overnight. I then used Dr. P. H. Martin's syncromatic water colors: Van Dyke brown (#9) and light brown (#6), cut approximately 35% with water. I stained one side of all wood, #9 on some and #6 on the rest. I applied washes of Floquil Walnut, Earth and Driftwood with a cloth to the stained side of the wood in a random manner. Sometimes I used all colors on a piece of wood, on other pieces I used two or just one of the washes. All of this achieved a varigated look among the individual boards. Finally I created knot-

holes and scored the wood with a #11 X-Acto blade to get those cracks and splits in some of the planks. I added nailholes where necessary.

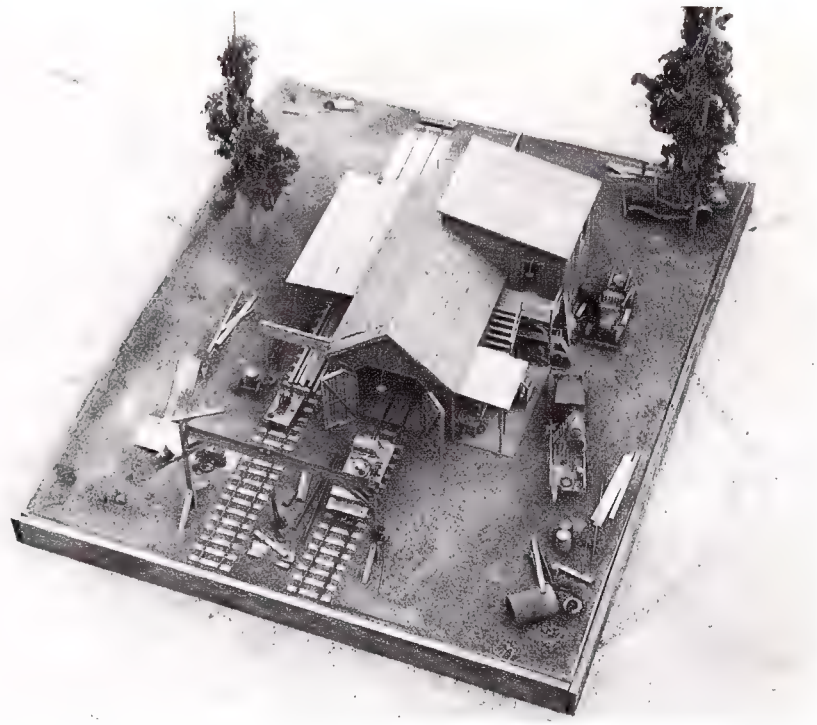
The beautiful soft gray color obtained from the Weather-It was perfect for an aged un-painted interior color. For a slight change in color a few of the interior pieces were stained with the Floquil Earth wash. One-fourth inch Upsom board was cut to the floor plan size and planked with 1 x 8's. A combination of Earth and dirty Diosol gave a convincing shed floor color. At first I decided to make the walls board and batten but after gluing the boards to the frames and trimming all edges I found they looked just fine and decided not to use battens. As soon as the walls, flooring and front doors were finished they were glued in place (with the exception of the long side wall). At this point I concentrated on interior design such as the placement of track, workbenches, junk, clutter, etc. This was made quite easy by utilizing the open wall space and trying to see things from an eye-level perspective. This is one of the best ways to view work during the various building stages.

After the interior was completed I glued the long wall in place. I then turned my attention to the windows. I used Kappler HO 1x 3's cut into individual window frame size. Then with white glue I glued each small piece to the pre-cut pieces of cover glass which had been previously glued to Grandt Line O scale 36 x 56 inch factory window frames. The reason for the ½ scratched, ½ cast windows was to cut the building time in half. For appearance sake the wood portions face outward on the structure. The two regular doors were scratched as were the main shed doors which move freely on commercial hinges.

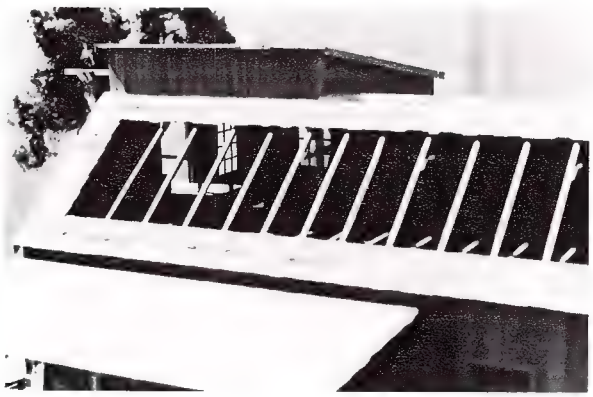
The stairs, stringers and platforms took a good deal of time, but the finished product was well worth the effort. These details added greatly to the character of the structure. The choice of broken, rather than straight stairs was made because I wanted a spot for that small workbench and side work track. All stairs, shed roofs and platforms are weathered using Weather-It. Next I distressed, scored and generally "messed up" the wood with a #11 X-Acto blade and a set of rat-tail files. After this I dabbed on Driftwood and Earth full strength with a brush in a sloppy manner to create a discolored dry look. This is done with a small piece of Terry cloth, patting the paint dry rather than rubbing it into the wood.

I next administered small brush loads of Teak and Maple to the exposed wood areas created by the previously mentioned gouging and chipping. Dirty Diosol was brushed on to show all the cracks, splits and nailholes and a very light dry brushing completed the weathering on this portion of the display.

I cut Silkspan to scale roofing-paper size strips, weathered it with Driftwood,



The whole display is shown in this photo. Notice the gantry crane and the sign over the track to the left of the building. If you have never built a display model you have missed a very rewarding experience.



The interior of this building can be seen by removing a section of the long part of the roof.

Earth and white to cover the second story roof. Over 700 individual shingles (whew!) were cut from 1 x 6, 1 x 8, 1 x 10, wood, stained with Driftwood and glued to the roof planking over the ceiling rafters. The longer roof side was chosen for the removable section. It offered the most spacious view of the interior.

The gantry crane was added a few months after the original display idea was completed. The more I looked at the front area of it the more I knew it needed something. A two track gantry made the most sense. The wood for the gantry was treated as previously described. The design is merely a double version of a Brommer 3 ton crane. I only had to add some NBW's and HO rails as runner guides on the topside. The small lumber company sign is a dry transfer distressed by scraping the letters with a small wire brush and picking at the wood with a #11 X-Acto blade.

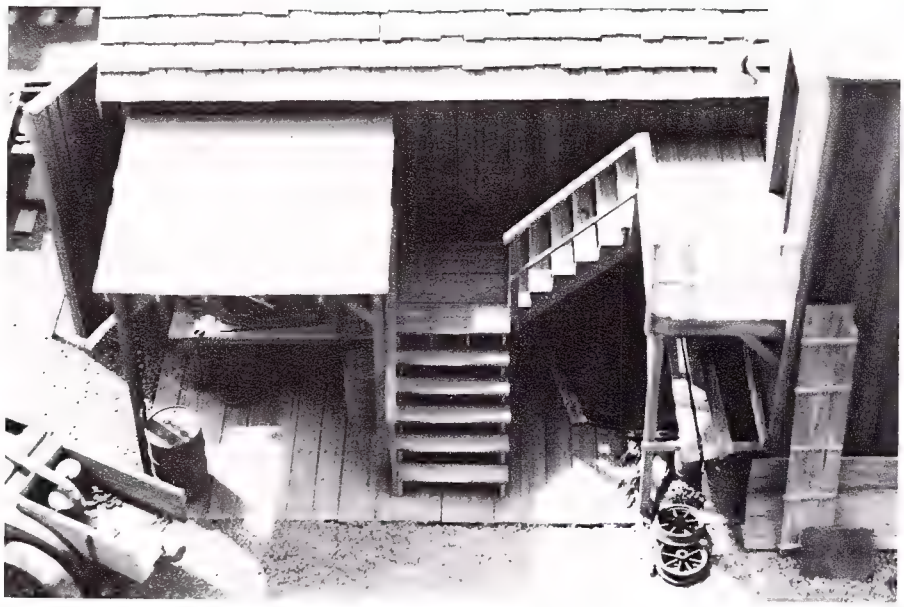
Once I decided on the display size and the placement of the structure the next step was to lay ties, track and ground cover. I chose a 20 inch x 2 foot piece of ¼ inch Upsom board for the base. The terrain is generally flat with a few holes or mounds. Ties were cut from 1 x 6's, weathered and glued in place. Ground cover over the track area was next, then the track was laid. Hobby Black #2 and some rust dry brushing colored the tracks quite nicely. Two types of real dirt were used for all ground cover. One was a tan color and the other was a wonderful gray-blue color. The dirt was sifted down to a very fine consistency with the aid of a mortar, pestle and sieve. Larger pebbles were retained as rocks. I used water, white glue, detergent and a spray bottle to attach the dirt to the display. Once the dirt had dried the shed was glued in place and a dirt edge was placed around the shed as a final touch up. The trees were made of balsa wood with dried oregano for the branches. Woodland Scenic's foliage was used on these trees. Then all that remained was the grass, track equipment,

road vehicles, junk and clutter, and general debris.

A Durango Press hand car, Renwal ¼ inch scale cars and a Wheelworks Ford were used to create the vehicles needed to supplement the railroad gear. I added a trunk extension to a Renwal 32 Ford and fabricated a larger truck from a Renwal Stutz kit. The cab on the truck was built up from styrene as was the back end. The hood, fenders, wheels and axles are from Renwal kits. Various commercial castings make up the "stuff" on the backend. Those Renwal kits are just great for kit bashing and those hard to make parts. Unfortunately they are no longer produced. *(More information on using these kits can be found in Mic Greenberg's article "The Bane of the O Scale Modeler" found elsewhere in this issue. ed.)* I built the railtruck from the hood and fenders of the Wheelworks 34 Ford kit. I used a Hetch-Hetchy HO cat blade for the plow and a Brommer crane adorns the hoist assembly on the back end of the truck. The cab is made up of individual wood and coverglass slides. The back end is board by board over a scratch-built styrene frame. I don't like to glue down road vehicles. Leaving track vehicles, a few boards, tools and oil drums loose adds vriety to photo sessions.

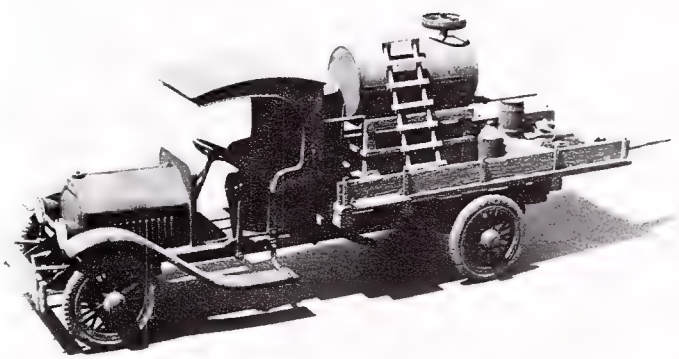
This was an interesting and fun project. The model has also done quite well in the contest world by winning a first place in the PCR Coast Division in 1978 and another first in the PCR NMRA contest at Santa Rosa, California in 1979. Recently I wrote an article called "The Anatomy of Winning" which I will share with you in a future issue of the **GAZETTE**.

(Many of the weathering techniques in this article were described in Mic Greenberg's article in the July/Aug 1978 **GAZETTE**. *Additional information can be found in the booklet series* Finescale Weathering Techniques *by Greenberg and Nash available from the Scale Model Weathering Co. ed.)*

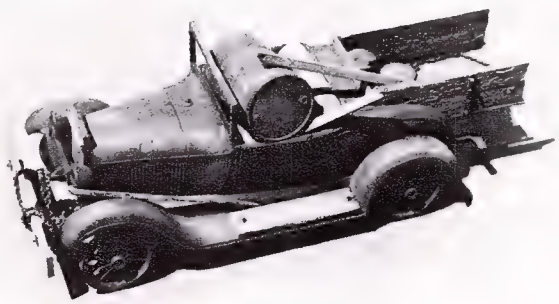


The use of wooden platforms and complicated stairways adds to the intricate appearance of the model.

The back-end of the building is broken up by this platform and stairway assembly. This kind of detail lends itself to weathering.



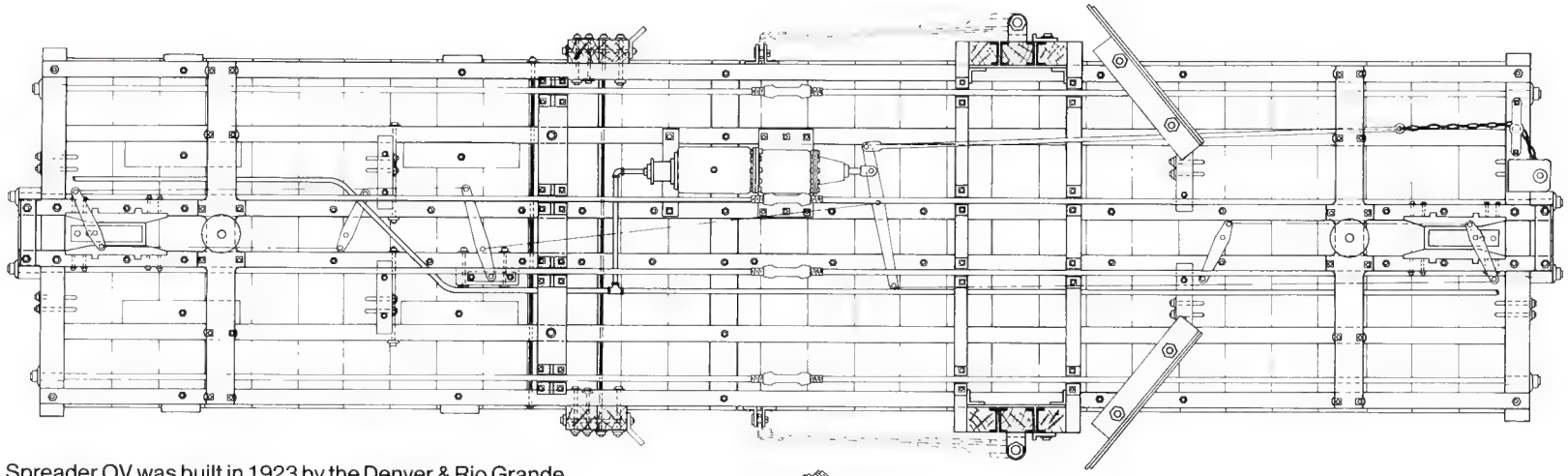
This truck was "kit bashed" from a Renwal Stutz plus styrene and wood. A few detailed vehicles like this add authenticity to any scene.



A Renwal Model A converted into a light pickup and filled with "junk". Notice the wooden running board and the missing tires.

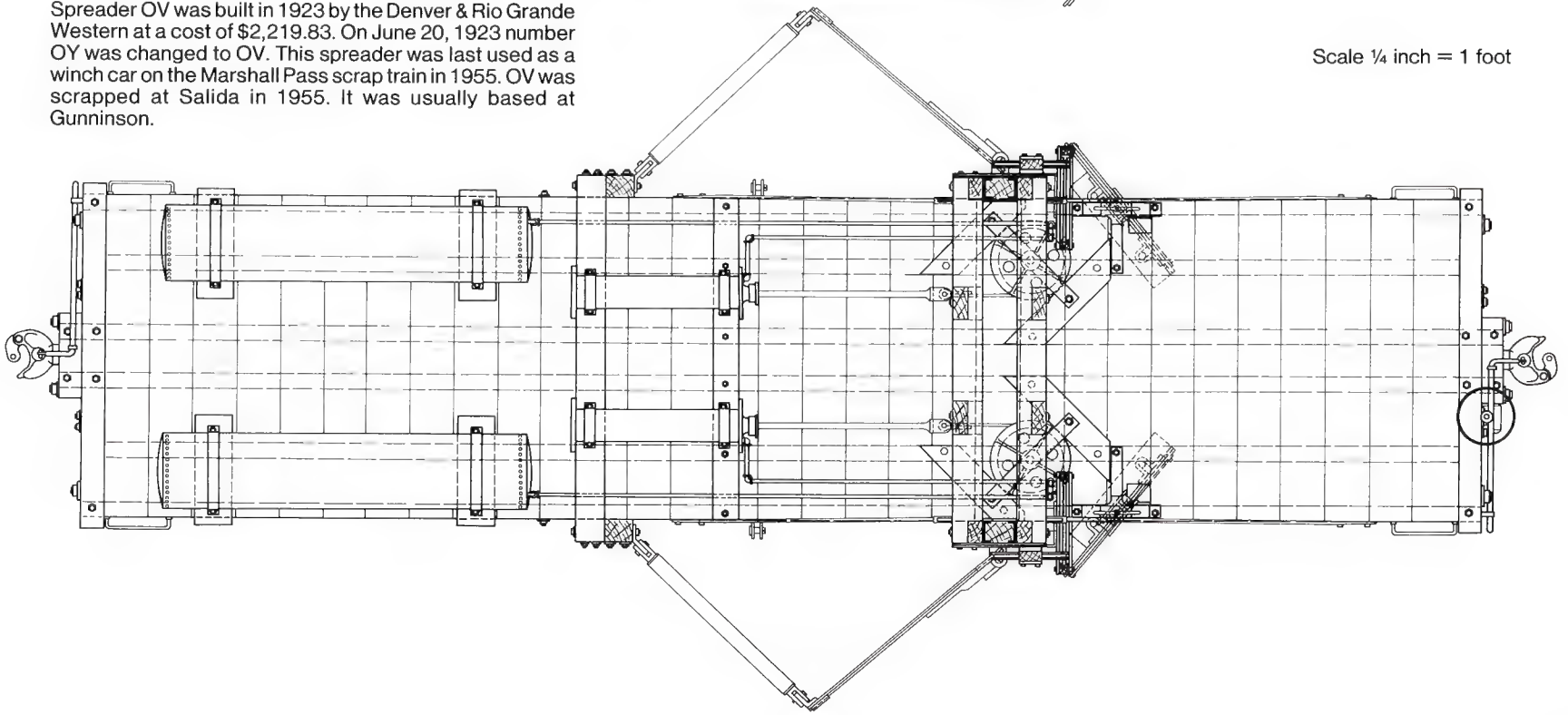
Denver & Rio Grande Western Spreader OV

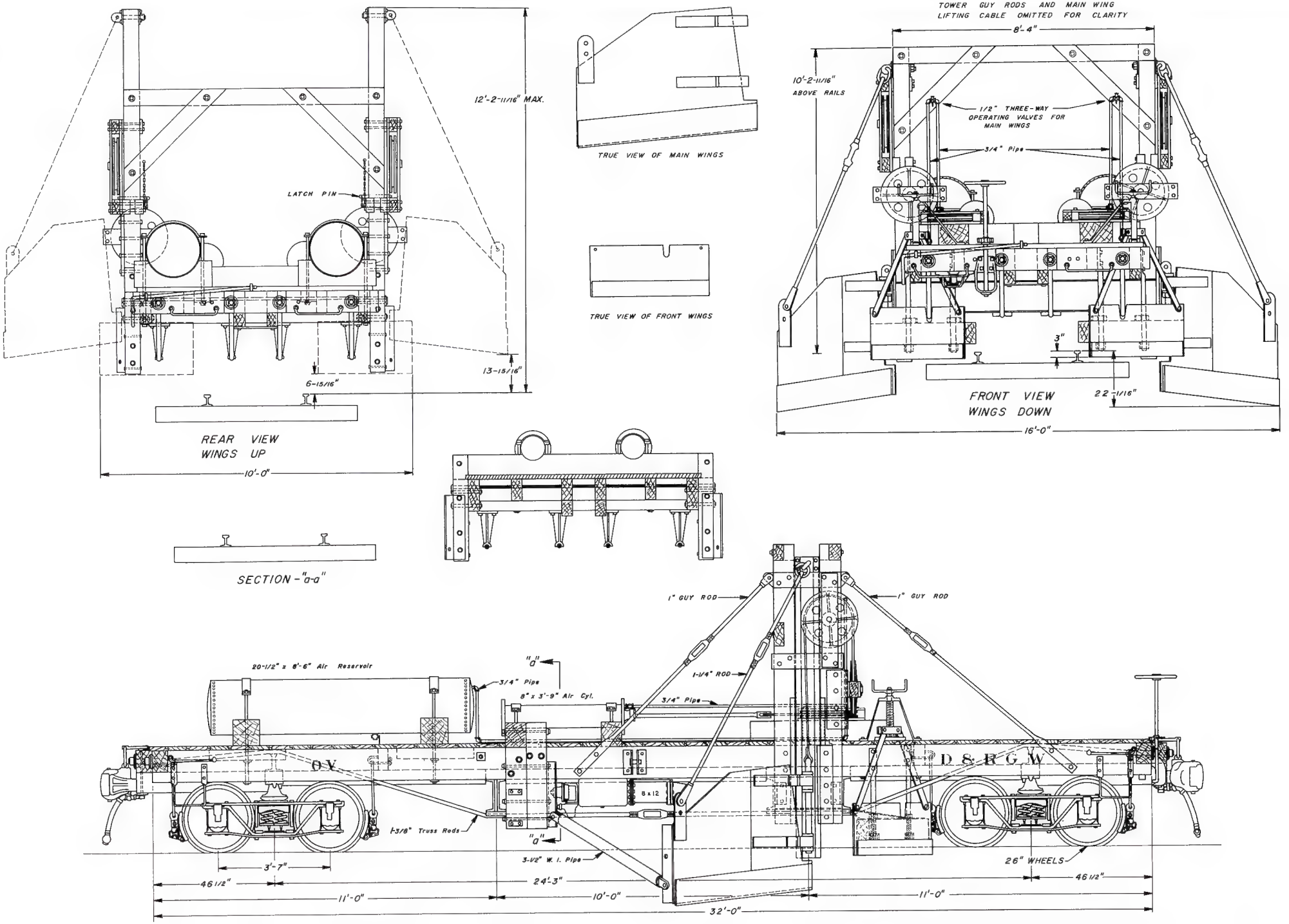
Traced from D&RGW prints by J. C. Benson, Sept. 1978. *From collection of John Maxwell.*



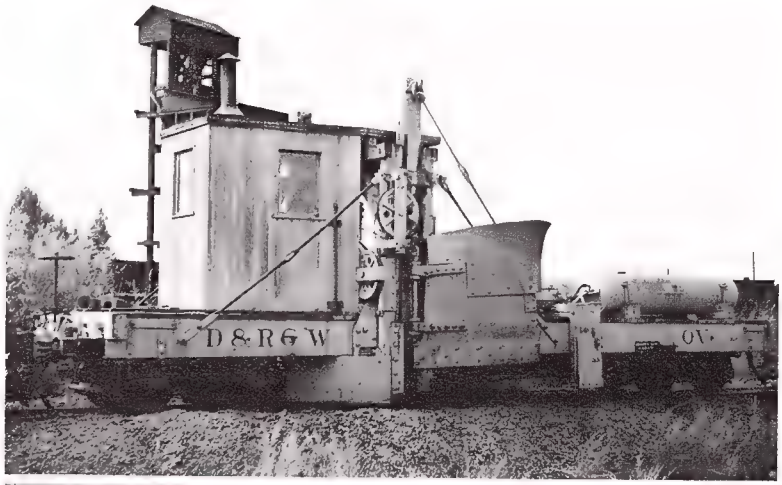
Spreader OV was built in 1923 by the Denver & Rio Grande Western at a cost of $2,219.83. On June 20, 1923 number OY was changed to OV. This spreader was last used as a winch car on the Marshall Pass scrap train in 1955. OV was scrapped at Salida in 1955. It was usually based at Gunninson.

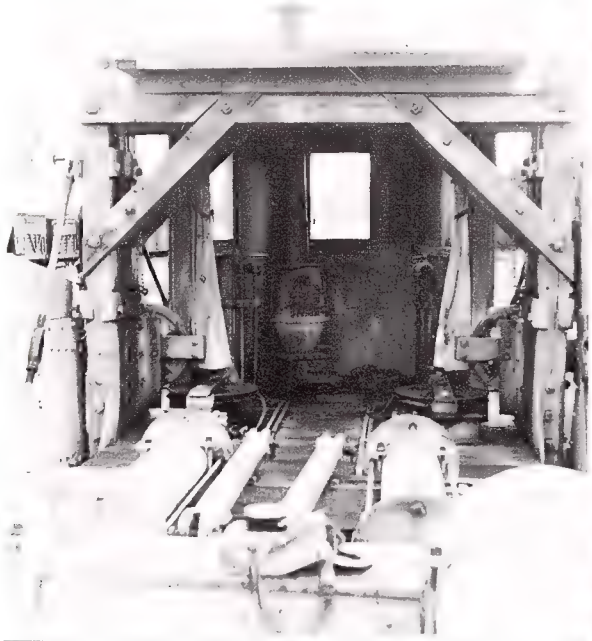
Scale ¼ inch = 1 foot

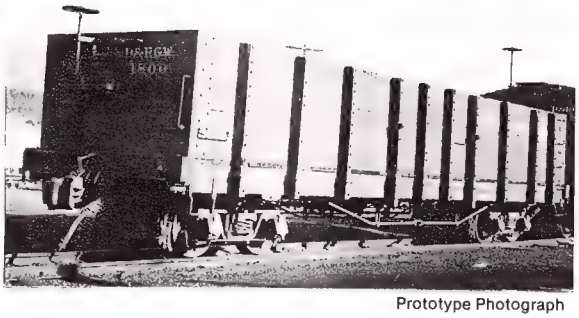



TOWER GUY RODS AND MAIN WING LIFTING CABLE OMITTED FOR CLARITY
8'-4"
10'-2-11/16" ABOVE RAILS
1/2" THREE-WAY OPERATING VALVES FOR MAIN WINGS
3/4" Pipe
3"
22-1/16"
16'-0"
FRONT VIEW WINGS DOWN
12'-2-11/16" MAX.
LATCH PIN
13-15/16"
6-15/16"
10'-0"
REAR VIEW WINGS UP
TRUE VIEW OF MAIN WINGS
TRUE VIEW OF FRONT WINGS
SECTION - "a-a"
1" GUY ROD
1" GUY ROD
1-1/4" ROD
3/4" Pipe
20-1/2" x 8'-6" Air Reservoir
3/4" Pipe
8" x 3'-9" Air Cyl.
"a"
"a"
8 x 12
1-3/8" Truss Rods
3-1/2" W. I. Pipe
D&RGW
26" WHEELS
3'-7"
46 1/2"
11'-0"
24'-3"
10'-0"
11'-0"
46 1/2"
32'-0"

Spreader OV photographed at Gunnison, Colorado in 1950. *Photos by Dr. R. S. Polkinghorn.*







Prototype Photograph

RAIL ROAD CROSSING

THE CROSSING GATE

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OAKLAND, CA 94611

THE HIGH-SIDE in 0n3

KIT No. 1 $33.50

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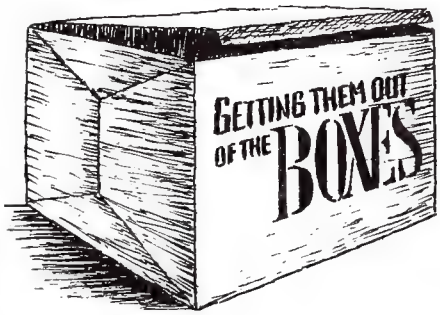
ASSEMBLING A ¼" SCALE YORKE BRICK STORE



by Bob Brown

Yorke Enterprises produces a fine line of kits and I want to encourage you to try your hand at assembling one of them. I chose one of the early brick stores brought out several years ago. As far as I know Yorke has two very similar stores #103 and #106. I assembled #103. This kit consists of four plaster castings and the necessary wood and cardboard to complete the model. The only trick to these kits is coloring them. Tom did an article on coloring plaster buildings in the Nov/Dec 1978 **GAZETTE**. Still, I have heard several modelers say that they doubt that they can effectively color the plaster parts. I talked to Tom at a recent convention and he showed several of us how he colors his brick buildings. I organized my work into modeling sessions of an hour or less each.

Session 1 – Preliminaries

My first step was to look over the plans to familiarize myself with the parts in the kit. I hate reading directions but in the long run it does prevent doing dumb things which might result in a spoiled and irreplaceable part. Next I cleaned up the plaster castings using an X-acto knife. Make sure your parts fit together and that the plastic doors and windows fit inside their respective openings. Make sure that you chip off the brick caps on the front end of the sides or they will not fit snug up against the back of the front wall. Sealing the plaster parts is essential to obtaining a fine finish on these kits. So your next step is to spray the plaster walls with Krylon plastic spray. I laid mine down on a piece of newspaper and sprayed first from one side and then from the other three sides. Do not hold the parts up because the spray might run down and collect in a door sill and affect the final color of your finish. Make sure you have thoroughly sprayed the sides making sure to get the edges and inside the doors and windows. Leave the parts to dry overnight.

Session 2 – Painting

I used a base coat of Floquil Boxcar Red to color my building. Use the paint full strength and brush it on. Do not worry about getting a smooth coat but do be sure to cover all the parts so no white shows. However, remember that all the plaster is not brickwork. Do not get too much paint on the areas that do not represent brick. You can proceed on the the next step without waiting for the red to dry. Get a bottle of Polly S water base white. Now decide whether you want a new building or a weathered one. If you want a new building with prominent white mortar then use the white full strength. If you want a weathered effect you need to dilute the white. I chose the weathered effect. I loaded my brush with water and then dipped it in the white. Next flush the brush over the bricks in a rapid motion across the bricks from left to right or right to left. As soon as you have done this wipe the area with a small piece of cloth which has been moistened with water. Make sure the rag is just damp not really wet. Then immediately wipe the area again with a dry cloth. The damp cloth will spread the white into the cracks between the bricks and the dry cloth will wipe the white from the face of the bricks. Don't worry if it is not perfect. That is the weathered effect you are looking for. Do this with all the walls making sure to get the bricks colored along the inside of the windows.

Interlude

(I found painting the plaster windows the most frustrating part of this kit. I used a small brush and trimmed the window edges with Floquil Foundation. I also colored the door areas and the top edge of the front wall with the Foundation color. I sprayed the plastic windows and then installed them in their respective openings.)

Sessions 3 and 4 – Assembly and base

I assembled the four walls using white glue and a small square to make sure everything was at right angles. Leave the walls to dry overnight. The base can be made while the walls are drying. The kit comes with a thick piece of styrene for a base. I traced the floor outline on a piece of heavy cardboard and glued it to the styrene sheet with white glue. I then sprayed the whole floor assembly Floquil Grime and left it to dry. It was then attached to a small piece of ½ inch wall board. The building was then fitted onto the base. The floor was cut to fit inside the walls so that the building sort of clips onto the floor.

Session 5 – The Roof

The roof on this building is unusual and precludes its being taken off the model. So the whole superstructure of the building lifts off the base. The roof is made up of a sheet of cardboard which is reinforced with strips of wood. The kit comes with silkspan for tar paper. I do not like working with silkspan so I replaced mine with Kleenex. I cut the Kleenex into strips using a large pair of scissors. After you have the strips cut then cut them into 10 foot long sections. I apply my tar paper by using paint to hold the Kleenex in place. Just locate the strip where you want it and flow some Floquil Grimy Black on. The paint will stick the Kleenex down. I use Grimy Black and White and dip my brush in one or the other to vary the color of the roof. Just don't over-do this or you will have a striped effect. Notice that the tar paper goes up over the walls which is why the roof does not come off on this building. Add a few patches and the roof vent. I think this method makes a very effective roof for any tar paper roofed building.

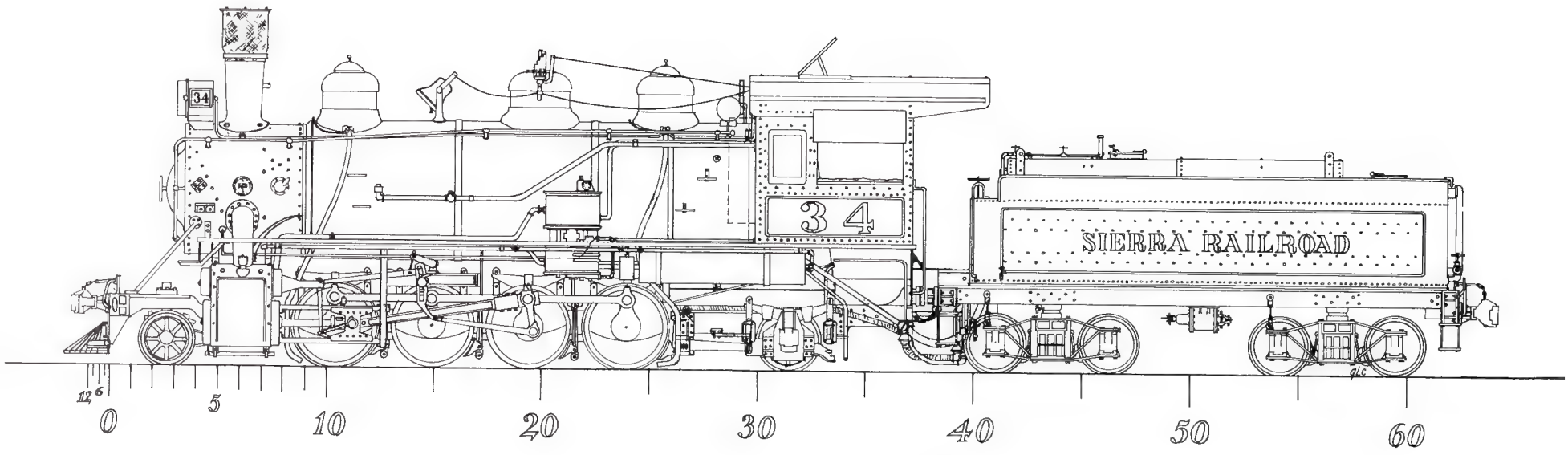
Session 6 – Finishing touches

Now dry-dust the building lightly using rust and brick reds. I find this a very enjoyable part of modeling. The powdered pigment can be purchased in small bottles at most art stores or you can scrape your own off of pastel chalks. I dust the model before I install the window material. Also remember to paint the inside walls of the building. I painted mine Foundation. Glue in your window material and carefully add the window bars across the windows. Make sure you paint these bars before you glue them to the windows. You only need signs and wall posters to complete your building.

I hope you have picked up some tips on assembling and coloring a brick building and will try one yourself. Remember, get the boxes off the shelf! And when you assemble a kit send some tips and a few pictures of your model.

Sierra Railroad's engine no. 34

BALDWIN LOCOMOTIVE WORKS
1925



Measured & Drawn by Gary Caviglia

February 1979

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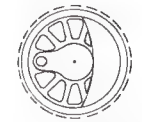
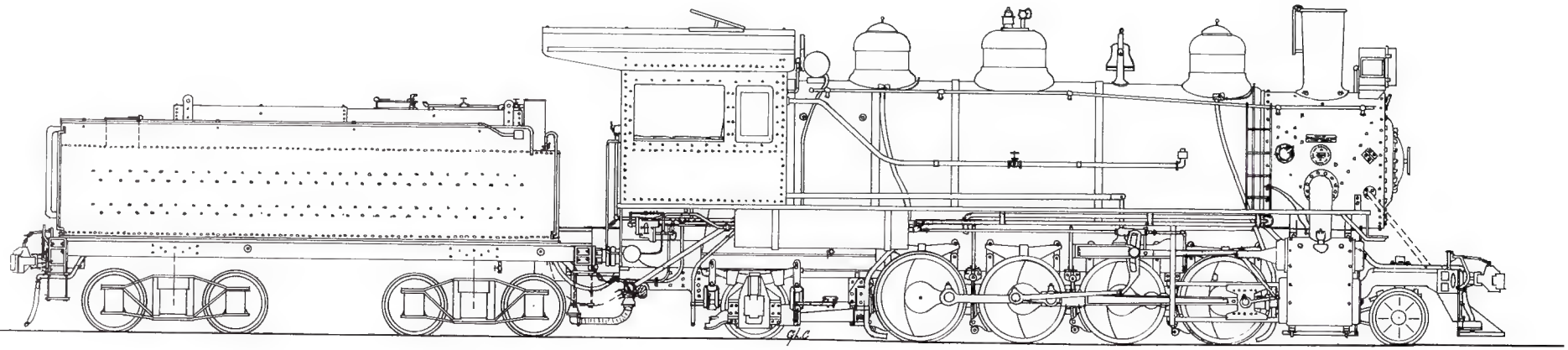
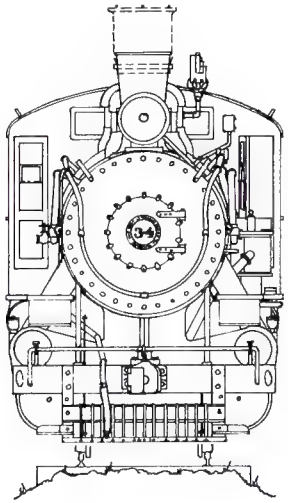
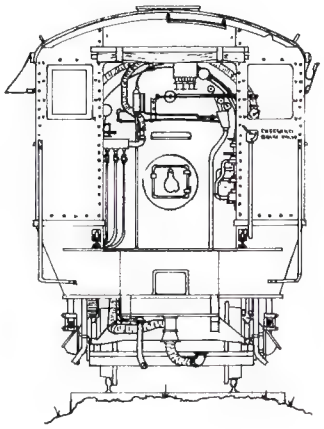


no: 1, 2, & 4 Drivers

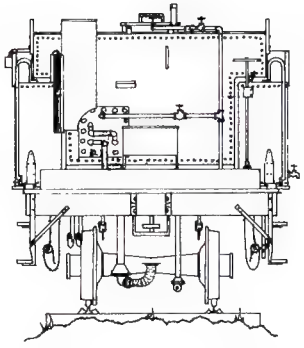
no: 3 Driver

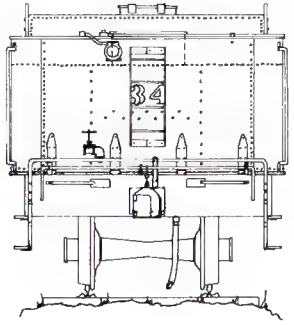


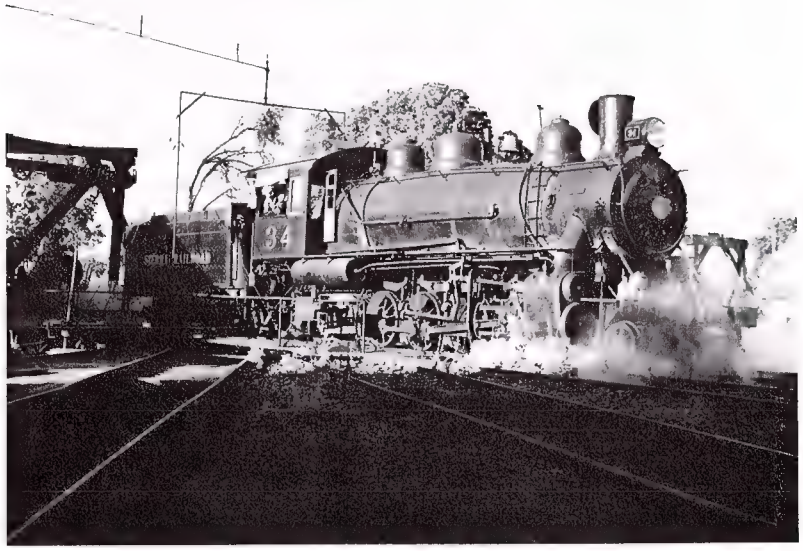




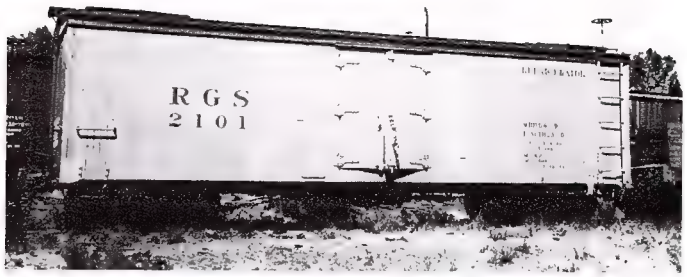
Number 34 on a freight dropping down the main line out of Jamestown, California in the late 50's. *Photo by Bob Brown*.

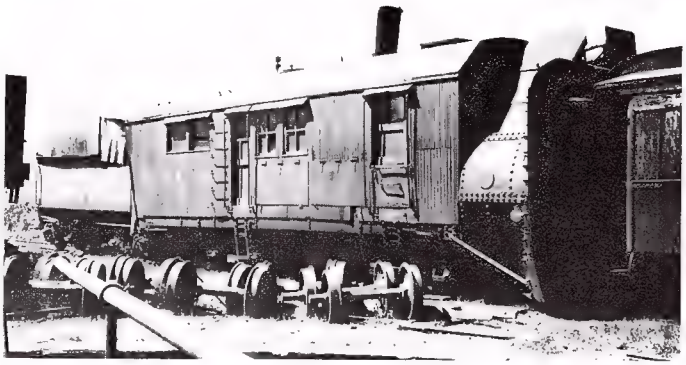


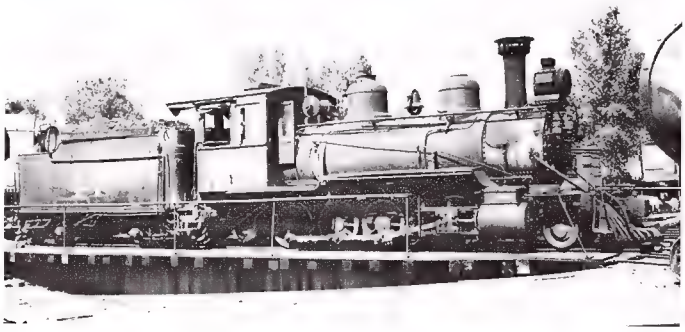




Number 34 being eased out onto the Jamestown, California turntable on a clear and bright morning. *Photo by Bob Brown.*







Top left: Three-foot gauge roundhouse at Ridgway, Colorado on July 18, 1939. Engines inside include #20, 40, 41 and Pierce Arrow Goose #7. *Photo by Ted Wurm.*

Center left: View from the turntable at Ridgway, Colorado in 1939. *Photo by Ted Wurm.*

Bottom left: Number 41 spotted especially for her photograph in 1939. *Photo by Ted Wurm from Bert Ward Collection.*

Top right: A yellow narrow gauge refrigerator car at Ridgway in 1939. *Photo by Ted Wurm.*

Center Right: An old coach rebuilt into a combine. Painted green and photographed at Ridgway in 1939. *Photo by Ted Wurm*

Bottom right: An old green coach rests in the sun in Ridgway. *Photo by Ted Wurm from the Bert Ward collection.*

A visit to the RIO GRANDE SOUTHERN

by Ted Wurm

NOTE: This article is another excerpt from a book in preparation describing a rail photo trip to Colorado by car in 1939. The previous excerpt appeared in the Nov/Dec 1978 **GAZETTE.**

Back in 1939 it was an unusual pleasure at last to visit a narrow gauge railroad operation that appeared to be thriving. After passing the ghostly remains of Nevada Central, Eureka Nevada, and the Uintah, Bob Gray and I came upon the D&RGW and the Rio Grande Southern in western Colorado and at last found ourselves facing more photo possibilities than we could have covered with three times the film. The "Grande" — clean, well-maintained, busy, — looked prosperous. Employees of the "The Southern" told us they were having their busiest time in years.

There was a special thrill in seeing two narrow gauge rail systems meeting and interchanging cars. This was still going on in Colorado and it was commonplace to see RGS cars at Salida and Alamosa and cars from the "Grande" all along RGS. Thus it happened that our first contact with "The Southern" was off line, as it were. We stood in the D&RGW yard at Montrose at dusk watching sparkling Consolidation #318 wheel in from Ouray with 25 freight cars, many bearing RGS initials, plus two coaches and the crummy. It was a sight that deepened forever my love of narrow gauge railroading.

The alleged prosperity of Rio Grande Southern was certainly not evident on the surface. As we parked and walked into their yard at Ridgeway the next morning, we were greeted with piles of jumbled old machinery, discarded equipment, and stored rolling stock jammed together in every possible area. The only clear spot was in front of the roundhouse, but even there, off to one side, sat two Rio Grande Mikes, #455 and another, then under lease. In the open roundhouse were ten-wheelers numbers 20 and 25, and Consolidations, numbers 40 and 41. Engine 20 had a huge wedge plow bolted onto the front. None of the locomotives was in a position to be photographed.

Bob and I walked with some trepidation into the office of the master mechanic, explained our ambitions and desires and especially our long journey to photograph his equipment. Soon Engine #41 was backed out and spotted on the turntable, in a position as good as could be desired in the brilliant, overhead sunlight. Shortly afterward, what came purring into town but shiny Galloping Goose #7, the latest Pierce Arrow conversion. It rattled lightly over the switches and was spotted for our cameras in a favorable spot. As I wrote in my notes at the time: "These cars are what saved the RGS from abandonment so that now it's enjoying (a profitable) period .... because a man insisted the profitable business was there and proved it with a gas-car experiment."

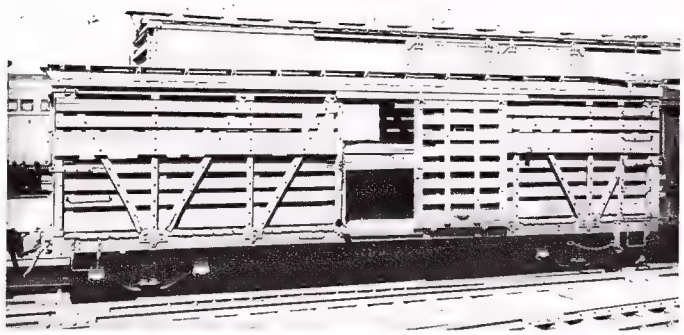
We walked around the cluttered yard, snapping what we could of the jumbled-together equipment: a refrigerator car, coaches 252 and 257 apparently relegated to MW work, a few freight cars, and rotary #02 which displayed Portland builder plate # 37.

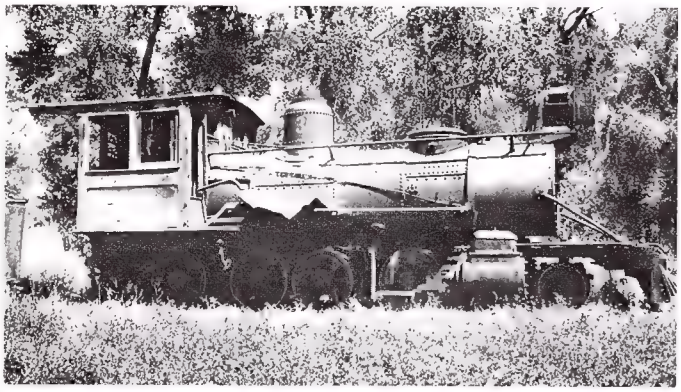
Heading southward over the mountain range on the then-famous "Million Dollar Highway", we hit the RGS again at Durango late in the afternoon. Rio Grande's "San Juan" had just rolled in from Alamosa, when up popped "The Southern's" Goose #4. It pulled alongside the polished varnish of the D&RGW and proceeded to transfer baggage and mail and two passengers for Dolores or somewhere out in the western wilds.

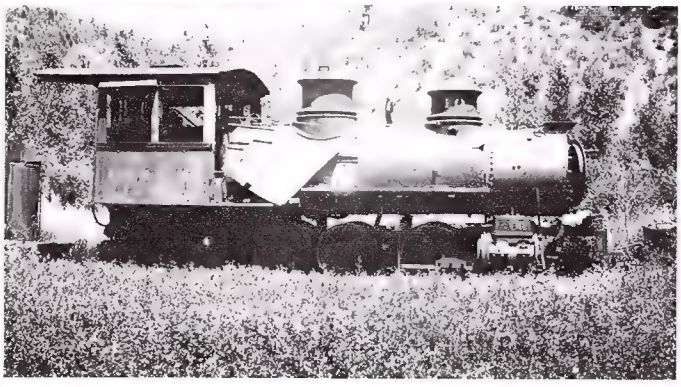
Next day we followed the RGS westward to Dolores ourselves, looking for the mythical New Mexico Lumber Company railroad. We found it — by then renamed Montezuma Lumber — at the end of a four-mile spur out of town. But that's another story. Nothing of interest was doing anywhere along that southern portion of RGS, so we returned to Durango and got ready to tackle the line's yard area just outside town. Up early in the morning, we searched the town for a sickle to chop down vegetation (our previous one had been left beside Uintah #20 back at Atchee). The only such tool available was a left-handed one (no wonder it was rusty and had to be sharpened), which we got for half price. Armed with this device, Bob and I proceeded to the Rio Grande Southern locomotive deadline, where six aged and mutilated 2-8-0's sat at the edge of an alfalfa patch.

Engines 3, 10, 12, 15, 16, 17 — all former D&RG C-16 class — had been sitting out there beyond town since sometime in the 1920's and all were without tenders and smokestacks. All loose accessories had been removed — even an occasional wheel. It took over an hour of stoop labor in the alfalfa to get the wheels clear enough to photograph. Even then the hulks made poor shots, so we did some cosmetic touch-up with chalk, circling some of the drivers, bringing out faded initials and numbers.

Hoping for some more rewarding "game," we next visited the small engine-house nearby. Engines 22 and 42 were inside, both with steam up. We waltzed in with the customary plea to the head hostler. That kind gentleman brought out the engines for us to photograph in the best positions the small yard offered. This was a poor place for lighting in summertime, but who could complain with such hospitality and surrounded with sweet-smelling, coal-burning, narrow gauge steam pots. With a flock of lively geese and fairly frequent steam freights, RGS was a going concern when we were fortunate enough to visit it in July, 1939.







Top left: A double deck stock car photographed at Salida in 1939. *Photo, collection of Bert Ward.*

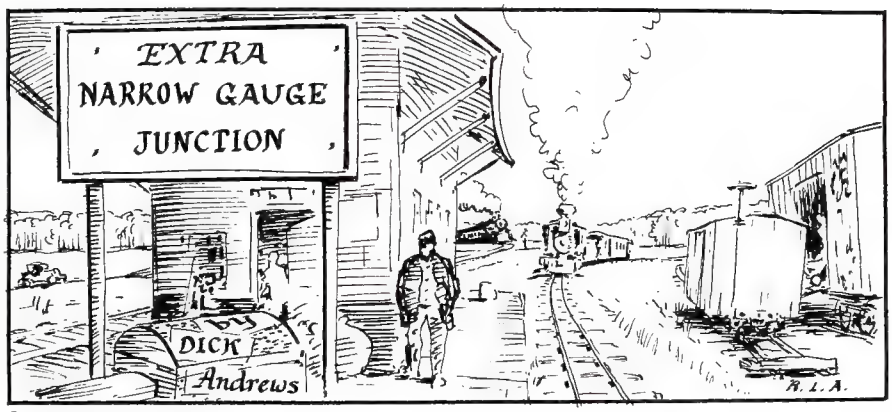
Center left: RGS #3 in the alfalfa patch where she has rested since 1926-27. The number 3 was chalked on the dome by Ted. *Photo by Ted Wurm from the Bert Ward collection.*

Bottom left: RGS #10 beside the alfalfa patch. Note the neat trim job by Ted on a hot day. *Photo by Ted Wurm from the Bert Ward collection.*

Top right: The Rio Grande Southern main line and engine house at Durango, Colorado looking west toward Mancos. The engine house is on the left with #22 outside. Number 42 sits behind. Goose #2 is visible in the shed. At the right is business car B21. *Photo by Ted Wurm.*

Center right: Number 42 spotted on the mainline in Durango in 1939. *Photo by Ted Wurm.*

Bottom right: RGS boxcar in new red paint at Durango. *Photo, collection of Bert Ward.*



by Dick Andrews

The charm of narrow gauge — was that when you rode it you were on a very special part of your trip. As you rode those last few miles over "the narrer gauge" the only other tracks you saw were deer tracks.

What are the possibilities for recreating in miniature the charm of narrow gauge? Fortunately, they are wonderful! These little roads "branched off" to reach places off the main line, so we are modeling those places — and also the place where they touch the main line at a junction. Just what sort of a junction depends upon the railroad, and happily no two have ever been quite alike. How do you go about designing a layout for a narrow gauge pike in miniature? How much room does On2 take? In this column I'll explore the modeling possibilities of some real narrow gauge junctions.

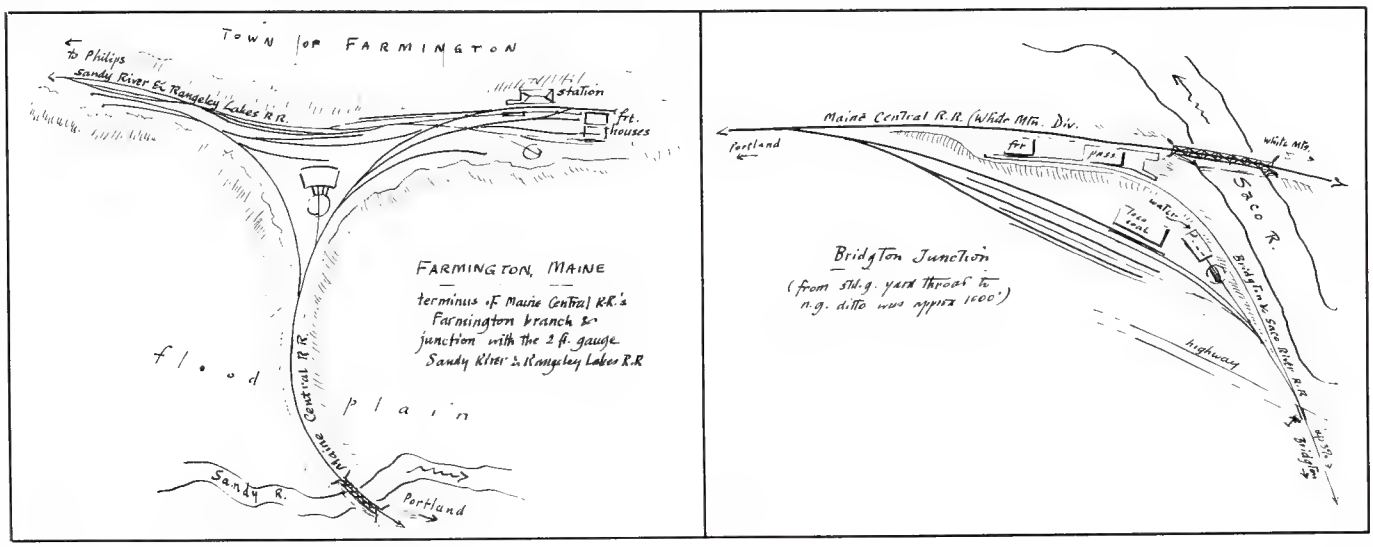
Throughout its career, the Sandy River line came down from its major operating center at Phillips to junction with the Maine Central at the pleasant little town of Farmington. A branch of the University of Maine is located there, and fine young people from all over northern Maine received training as teachers in its halls. The Sandy River winds down through its narrow flood plain just west of town, and the Maine Central's Farmington branch line came up on high ground west of the river and then swung around a long curve over fill and bridge to cross the low ground and river. The sweep of track continued until it landed on the high bank on the edge of Farmington now headed south again. The Sandy River line came down along the east side (or Farmington side) of the river and the two foot tracks reached the station by crossing over the broad gauge at several points. This would be very interesting to model entire if you have a generous cellar or use a small scale, but a simplified version can include many of elements of the scene — including the ball signals which were raised and lowered to give each gauge its cue to make moves while the other stood by clear of the crossings.

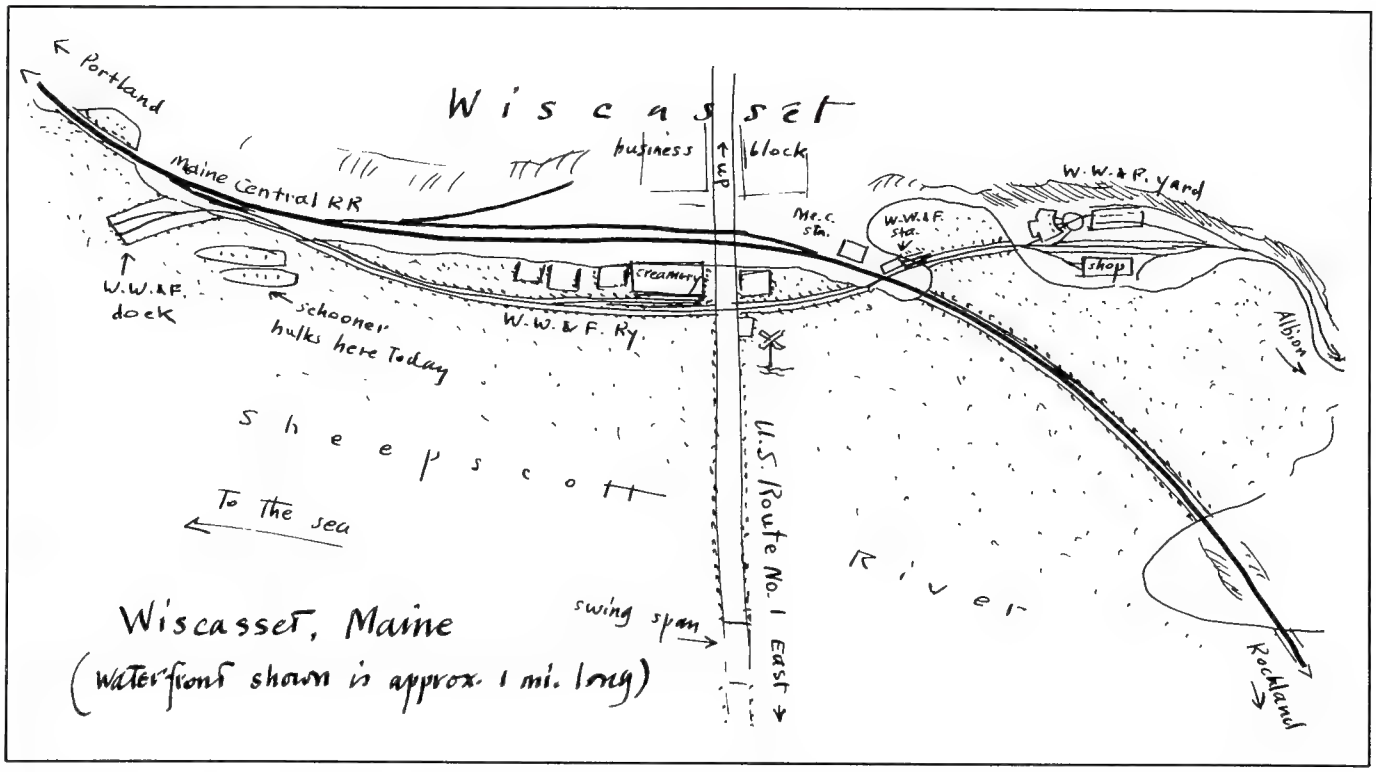
The Farmington yard was thus an "end of track" for both gauges. Rather different was the situation at Bridgton Junction on the Bridgton & Saco River RR. The town of Hiram was not far off but Bridgton Junction was itself not near or in any village. The Mountain division of the Maine Central came up the Saco River valley northbound, and the narrow gauge came down a long grade into the valley and, crossing a road, just aimed at the standard gauge line on a long fill and climbed up there and drew alongside. A long plank platform ran between the gauges and there was a station and freight house. A spur of "broad" (as they called it in New England) gauge ran off into a tiny freight interchange yard below where it interleafed with narrow gauge spurs. An unusual feature was that the narrow gauge had no "runaround" siding to get the loco around its train to haul the cars back to Bridgton.

When a B&SR train had drawn up to the station, and passengers for the wide gauge and all the "head end" items of mail, parcels, etc., had been exchanged, the narrow gauge train then backed away and up the grade a bit, clear of the throat switch into the yard. Then the conductor would tie down the cars, the locomotive would go into the yard, and the throat turnout would be thrown back. Then the brake was let go and the cars coasted to the clear on the station track. This is a good wrinkle for models. I used it with good effect on a layout many years ago, and am doing it again. (If it is a straight passenger train, the locomotive turns on the table, is watered and coaled, rejoins its cars, spots them again at the station and then leaves. If it is a freight or mixed, the locomotive might switch the interchange yard before turning.) One other oddity of Bridgton Junction yard was its short stretch of standard/two foot dual gauge, which permitted a wide gauge coal car to be unloaded at the narrow gauge locomotive coaling dock.

Monson Junction has been shown in these pages by Bill Jensen (Sep/Oct 1978 **GAZETTE**) and is in a general way not unlike Bridgton Junction. The "broad" gauge comes through and the narrow gauge trains turn and switch and leave again for home.

Rather different was Wiscasset on the Wiscasset, Waterville & Farmington line. The Bridgton road after all was built by the town of Bridgton; the Monson served interests centered in that place; and the Sandy River line was built by interests up the valley at Strong, Avon, and Phillips. They all had their junctions but didn't live there, and if the broad gauge lines had been at other locations the narrow gauges would have been built to reach them. Bridgton considered two other connecting points with standard gauge before choosing the site on the Saco River valley





line. However the old WW&F was Wiscasset's road. Thereby hangs a bit of a story.

A sea-port today is a place where ships from everywhere come to load or to discharge cargoes which are hauled in or out (we hope) by rail lines for other points. But a century and a half ago on the Maine coast, a sea-port was a place where men built schooners and clipper ships of wood from nearby tree stands, manned them with crews of local lads, and took off across the seas to carry rich cargoes back from China or far away gold strikes. Drive into Wiscasset today and you will see large and handsome houses. Successful ship captains and owners built them, and you will see some cupolas or even roof walks (sometimes called Widows' Walks) where wives watched to see if a familiar top sail was at last appearing up from the sea.

When Wiscasset finally realized that to be a sea-port, it had to have commodities to export, time was running short... and money. It set out to build a two footer to reach Canadian timber and wheat — but the little line was cut off at the pass — pre-empted by "broad" gauge tracks running to Portland. It was denied a fair crossing over such lines, and fell back to being a local farmers' outlet 45 miles long. The operation then was not unlike the ET&WNC which I described in the Jan/Feb 1978 **GAZETTE**. Albion, like Boone at the far end of the ET&WNC/Linville River line, was served by a daily mixed down to the junction and back each day.

But just as all freight extras and excursions were dispatched out of the Johnson City end of the ET&WNC, and all shops located there, the Wiscasset yard and shops handled all dispatching of freight and work extras on the WW&F, and all equipment was kept and serviced there. Below the narrow gauge engine terminal, shops and yard the little line crossed a tidal inlet on a trestle, and came ashore briefly on a neck of land occupied by the Rockland branch of the Maine Central RR. There the narrow gauge had a little station, half on piling. Then it crossed the "broad" gauge line by a diamond and took off down the town waterfront on a long pile trestle to reach its deep water dock at

One of the buildings which sat out over the water at Wiscasset was the Turner Brothers creamery. This building was served by a spur which was on a pile trestle. Here is Bob Brown's On2 Turner Brothers building with one of the two Turner Centre refrigerator cars waiting to be loaded. Bob still owns the car but Wiscasset has been sold and is now on public display at Models & Miniatures 1375 S. Bascome Ave., San Jose, CA. *Photo by Bob Brown.*

the lower end. In doing this, it ran along offshore for a few yards and crossed U.S. Route #1 at grade — over water! Just below this crossing was a creamery — on piling — and a narrow gauge siding to it — on piling. Finally the narrow gauge came ashore, had a freight interchange with the broad gauge, and went on out to its dock. Today you can still see vestiges of the old pile trestle down the water front, and the two old schooners — LUTHER LITTLE and HESPER — rest their hulks on the mud near the old narrow gauge dock. Our own Bob Brown made a fine model of this extraordinary yard some time ago. See the photo.

Then there was the tiny Kennebec Central in Maine which ran five miles from a point across the Kennebec River from the city of Gardiner, up to a National Soldiers' Home at Togus. The little pike lived to serve the home but it was not built by the home but presumably by Gardiner enterprise. So it is only natural that its tiny yard and station on the edge of the river just south of the east abutment of the bridge — was "junction" and also "home plate". The KC did have an interchange of sorts with another railroad. A "broad" gauge line came up the river on the Gardiner side. Supplies for the home were carted across the covered wood bridge across the river. Even passengers were interchanged since in those days passengers were used enough to walking a ways between trains. In a year or two when the little road got a contract to haul coal up to Togus from barges and schooners coming up the river, it built an unloading dock.

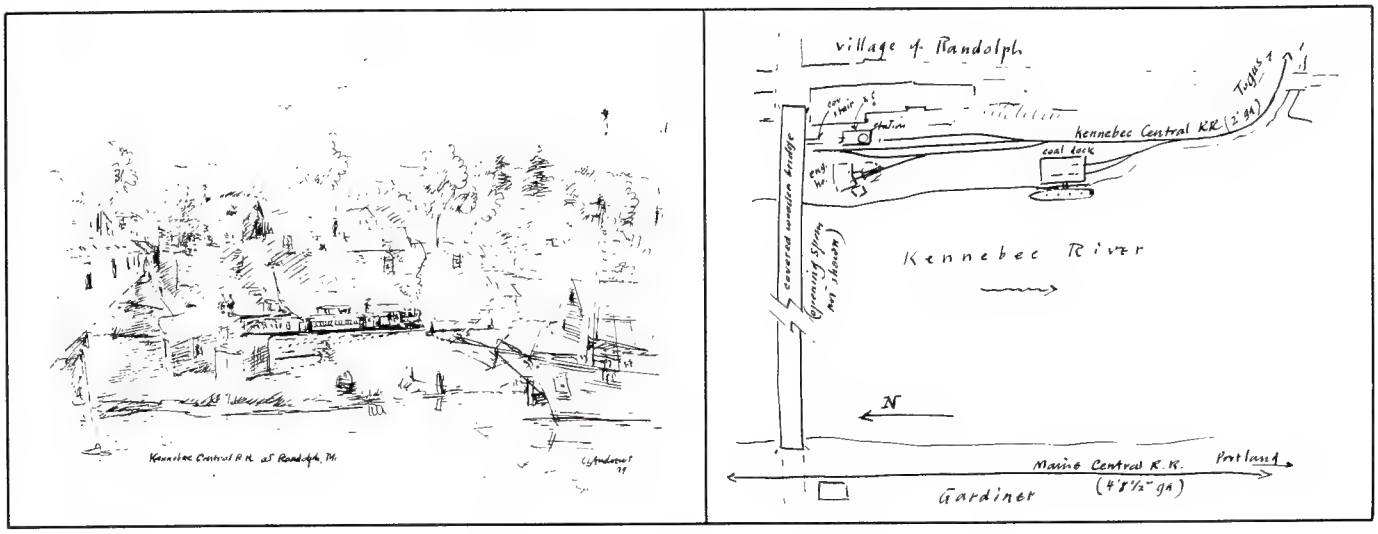
A feature of the Maine coast — if you are intrigued by the thought of a marine terminal as part of your junction plan — is that it is a "drowned" coast. It has bold rocky capes jutting out to sea — and long narrow bays and inlets running way inland. Some bays become rivers with water depths quite deep — although bank to bank width might be narrow. Wiscasset is twenty miles from the open sea; the little terminal of the Kennebec Central at Randolph village across from Gardiner was even further up. Yet quite large vessels can come in by tug and tide.

Such is a quick picture of the two-footers as branch line roads; three of them rooted in small valley towns and villages and reaching out overland to junctions; one rooted in deep sea concerns and reaching inland for traffic to export; and one charming little institutional facility that by rapid shuttling on its short line could move crowds of people to and from a band concert, or shiploads of coal to a power plant — all from its tiny yard on a river bank almost under one end of a covered bridge. Every narrow gauge line is a little bit extraordinary and has its own reason for being. When you have settled in your mind what the reason is on your layout, then everything else begins to fall into place.

So how much room does On2 take up? I am finding on my new pike that the junction yard and the home town yard can each be only 6 feet long and 2 feet wide yet give me prototype moves and reasonable trains. A 9 x 12 foot back room along-the-walls pike, can give you an 18 foot main line quite easily. Next time we will figure out how to make that 18 feet seem like 18 miles with plenty of action. Now I have a few items to mention which may help you two-foot fans get started building.

We have received some fine samples of two-foot gauge locomotive superstructure etchings in both O and HO scales from Bob Sloan. Bob offers a Portland etching (which can be trimmed slightly to make a Hinkley); very useful for these popular small 0-4-4T locos. Then there is a Baldwin 2-4-4T etching based on B&SR #6; automatically this is also SR&RL #8 as they were sister locos, and probably close to WW&F #7, SR&RL #9 and B&SR #5. Finally there is an etching which can become either SR&RL #23 or 24. Bob states that the cabs were identical but the girth and lengths of the boilers were not, so his etching sheet provides for this, and also includes a smoke box front (and number plate) for either loco, The tender is of course also included. We noted that the boiler opening in the cab front sheet is not quite centered but a little file work can fix this. These etchings are bit very deep which facilitates assembly as no openings have to be cut out, but some slight file work may be needed at points. Bob's instruction sheets are very clear and helpful and he correctly points out that modelers should obtain locomotive plans from such sources as Coronado Models, or Portland Products.

A fine little On2 freight house comes from Sandy River Car Shops; this was at Madrid Junction in Maine on the old Sandy River line. They must have had us in mind when they built it — neat and small and easy on the layout space. Finally a few general remarks for modelers who have not built their own locomotives or frames as yet: — The fine items that have been mentioned here and elsewhere in the **GAZETTE** made for On2, Sn2 or HOn2½ will all save you time, but if you wish to develop the skills specific to locomotive scratch-building, we have two suggestions. One is to hang around someone who does light metal and machine work and learn to drill, tap, cut and trim and so on — so that you can shape any part desired yourself. The other is to take a course. If your girl friend, or sister or wife is taking a course in jewelry making, go along — or take a course in jewelry making yourself. The basic approach to working small metal parts through annealing, shaping, and filing, and soft and silver soldering, is very close to what you will need for putting together any locomotive model. Next time, 18 feet become 18 miles.



Dick

The MODELMAKERS NOTEBOOK

by AL ARMITAGE

Jigs and Fixtures

For some strange reason, many modelers consider jigs and fixtures only as an adjunct to mass production methods in manufacturing. Actually, jigs and fixtures are also very useful aids to hobby modelers. Quite often most hobbyists find a need for a number of duplicate parts of a certain length, size, or shape. Producing these individually is seldom very satisfactory since it is hard to maintain accuracy and consistency. A jig is the answer. Jigs are not necessarily complicated or difficult to make. The simplest of jigs is more than adequate for the kind of repetitious work we modelers frequently encounter. (And hate to do.)

When I started building models of ships, wagons, airplanes, etc. back around 1925 I had never heard of a jig and wouldn't have known what it was if I had. There were no model magazines then, other than Popular Science and Popular Mechanics, to tell a guy how to do things the right way. Even though some author would, occasionally, describe some sort of fixture for producing a quantity of deadeyes, and blocks, for a ship model, that was about it. I was always too impatient to take the time to make the fixture, anyway. Seemed like a wast of time to a kid who was always a "result hound".

Contemplating one of my finished models that lacked the certain finesse I expected from an accurately and neatly done model led me to realize that perhaps I had been too impatient. I should have made that jig. Once I started making jigs I saw the improvement and I learned that the jig actually saved time. I soon was looking for and finding ways to use jigs in all kinds of modeling.

Take the case of ladder rungs as an example. Cutting a quantity of such pieces can be made much easier, and quicker, by using a simple jig like that in Fig. 1. Essentially, it's a miter box with a stop which will assure much greater accuracy than can ever be achieved by freehand cutting. My sketch illustrates the type I use for styrene strips but the same design works just as well for cutting wood strips with a knife. Adding a guide will make the set-up more suitable for cutting heavy stock with a razor saw, either wood or styrene. Make the "work" slot loose enough that the strip will slide easily into position for the cutting. This will take care of any slight differences in the width of the strips, too. The strips that form the slot to hold the work need only be high enough to keep it in place with finger pressure while cutting.

Note that the stop is set to engage only the corner of the piece to be cut. This makes it easier to clear the cut pieces and minimizes binding. Remember, when you cut material with a knife, it spreads the material whereas a saw removes material in the form of sawdust. For a saw fixture, it is better to place the stop at the opposite corner so the final saw stroke will push the work away from the stop.

This kind of fixture can be assembled very quickly, from styrene scrap, to suit your requirements. Fig. 2 shows a similar fixture arranged for cutting a quantity of boards from sheet styrene or card stock, if you prefer. They might be used for a fence, siding, or a plank sidewalk. It is quicker to do it this way than to cut long strips and then cut off the boards to length. Also, if the length of the boards is critical, this is the most accurate method providing, of course, that the sides of the sheet are parallel to begin with!

Since the jig must be stiff enough to hold its shape, it is best to use heavy styrene sheet for the base. Depending on the size, and use, of the jig, I use .060 inch or .100 inch stock. For small jigs, .040 inch may be entirely adequate. Of course, any of these fixtures can be made of wood, if you're a styrene "hold-out", but making them of styrene is much faster and they can be put into use just about as soon as they are finished!

Another very useful fixture, which can be used indefinitely, is the one shown in Fig.4. It is designed for assembling right angle corner joints in box cars, buildings, etc. If you make the fixture accurately, it will assure you of properly squared corners in all your construction and it's about the only way to achieve this, consistently.

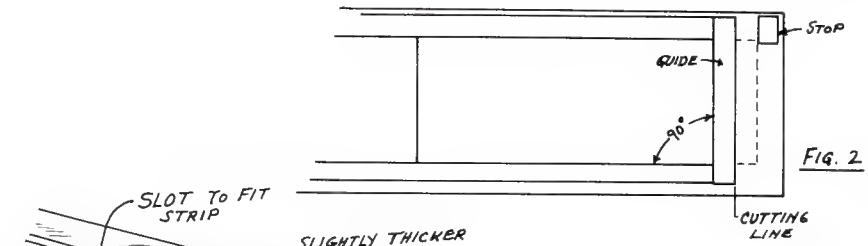


FIG. 2

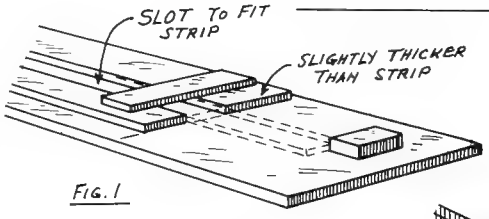


FIG. 1

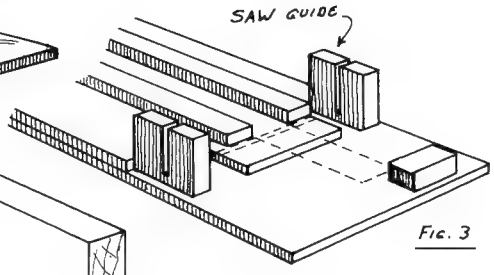


FIG. 3

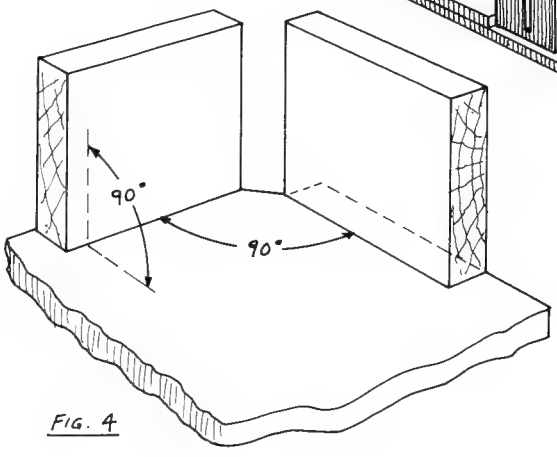
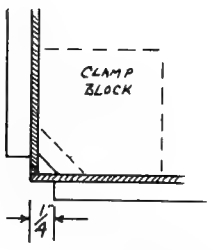


FIG. 4



As I've sketched it, it is designed for styrene assembly but it would be just as practical for other materials, as well.

Note the corner of the base is cut off to leave an open space under the joint area. This prevents the ketone from bonding the work to the fixture. Keep this in mind for any assembly fixture intended for styrene use.

A clamp block, of wood, is helpful in holding the parts in place while bonding them. Just push it against the parts by hand. Note that the corner is cut off the block, too.

The reason for the ¼ inch maximum dimension is to allow the fixture to provide sufficient support for the parts so they won't be distorted by undue pressure from the block, or your hands. Once you have used this jig, you'll wonder how you ever got along without it.

Not only are jigs essential for making duplicate parts, but are also necessary in all kinds of construction requiring equal spacing of parts. A perfect example, of course, is the aforementioned ladder. Fig. 5 shows such a fixture designed to produce one of the more primitive styles of ladder found around railroads of the past.

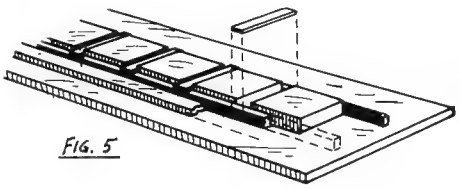
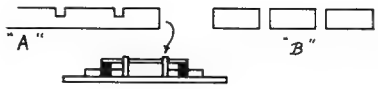


FIG. 5



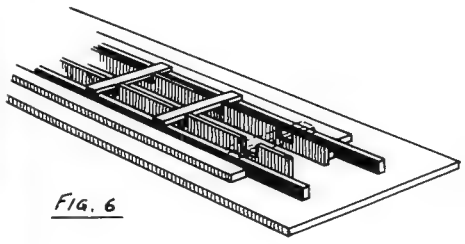


FIG. 6

If you have a need for even a few of these ladders, this little jig will be well worth the time it takes to make. The jig in Fig. 5 is designed for wood ladders while that in Fig. 6 is more suitable for styrene assembly. It is somewhat more complicated to make because of the "clearance" required to keep the ketone within bounds. Two versions of the rung spacer are shown. Type "A" has notches filed in a single strip (do both together!) Type "B" is made of separate pieces bonded to the inner guide strip, using a rung as spacer.

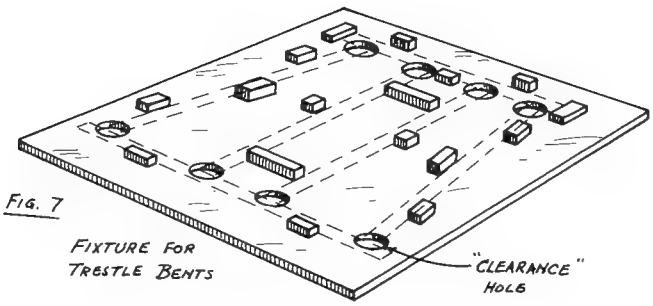


FIG. 7 FIXTURE FOR TRESTLE BENTS

A similar type of fixture can be made to produce any number of such items as trestle bents, roof trusses, or other construction assemblies of like nature, both accurately and quickly. A typical "bent" fixture is shown in Fig. 7. In assembling a wood bent, with glue, you would not need the clearance holes shown but they are a necessity if you use ACC to bond the parts.

The use of such a jig guarantees that all bents will be identical — an essential factor in the final assembly of a trestle.

So far, we've considered cutting, spacing, and assembly fixtures. There is yet another type called a contour template. Have you ever tried to shape the ends of a passenger car roof so they match? Next time, make a couple of templates, like those in Fig. 8, and you'll do a much better job. Also, if you are making built-up roof from strip wood, templates will be invaluable for getting the cross-section contours alike. If you think about it, there are many instances where a template of some kind will be useful.

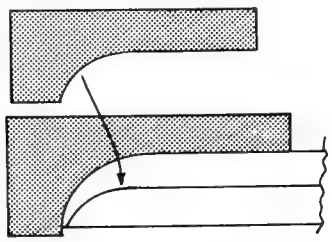


FIG. 8 CONTOUR TEMPLATES

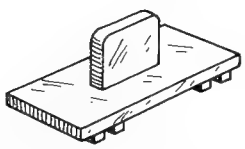


FIG. 9 TRACK GAUGE

If you hand-lay your track, you have probably wished for several more track gauges to hold the rails in place for purposes of "surveying" or for preliminary spiking, etc. Why not make up a few out of styrene? If you want more than a few, make up a long section and cut off short lengths. Fig. 9 shows a simple type, with a handle, that I have found very handy over the years. I like to make them so they fit snugly on the railhead to hold the rails parallel for spiking. Use a "Master" gauge for final gauging, of course.

Suppose you use standard gauge flextrack for your layout but want to install a bit of narrow gauge trackage for scenic effect or, perhaps, a short "tramway" for a mine building. These "quick and dirty" gauges are just the thing for such projects. Just be sure to make the gauge accurately if you plan to operate trains on the track.

There are innumerable situations where a spacing gauge is not only a time-saver but almost a necessity for achieving neat and accurate assembly. A typical example is windows on a built-up passenger car side, Fig. 10. I haven't shown it but a handle, similar to the one on the track gauge, would be imperative on this type of gauge. Note the cut-off corners.

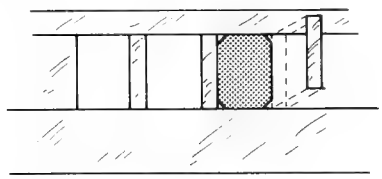


FIG. 10 SPACING GAUGE

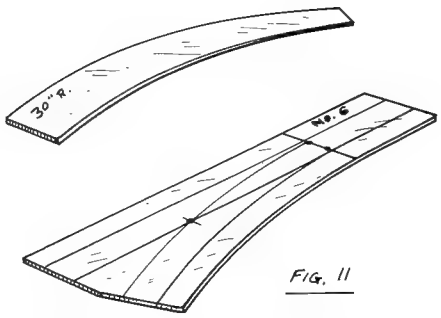


FIG. 11

Full-size templates for curve radii and turnouts are very useful for hand-laid track construction. Layout a switch for each of the frog angles you use on a sheet of styrene, cut it out, and you have a permanent tool for all your switch building. Drill a hole at the frog point and mark the location of the juncture between points and stock rails on both sides of the template so it's reversible for left and right turnouts. (See Fig. 11.) Make several different curve templates of whatever radii your plan calls for and you will find

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them handy for plotting your trackage on the benchwork. Invariably, the track plan you worked out on paper doesn't fit the benchwork exactly as planned so adjustments and compromises crop up here and there. Templates will show just what you can, and can't, do with your track. A couple of straight templates are of use, too.

Still another type of spacing gauge is that shown in Fig. 12 which might be used to locate fence posts, for instance, or roof vents on a passenger car. And how about one with a double row of holes for drilling grab iron holes in car sides? Laying them out once beats having to do it for each one on four sides of a car.

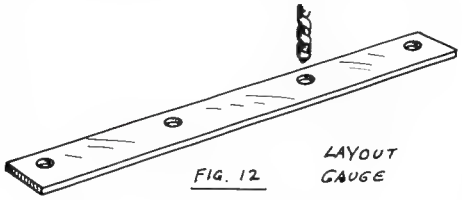

FIG. 12 LAYOUT GAUGE

Lastly, have you ever tried to fit a dome, or stack, to a boiler that wasn't quite the right diameter for the part? Fig. 13 shows a way to make them match perfectly, provided the difference is not too great. Tape garnet paper to a "mandrel" just slightly smaller than the boiler and carefully work the base of the dome to the proper fit. Rotating the sanding block works well, too, especially for final finishing. You must go at the job carefully so as not to take too much material off one side of the seat or the dome will not maintain its vertical centerline on the boiler. I think this method is far better than filing the part to fit.

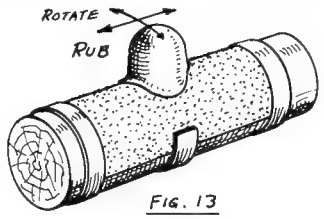

FIG. 13

Let me wind up this dissertation by describing one of the most useful tools I have ever designed for working with both wood and styrene. As a jointer, for all kinds of fabricating, it can't be beat, although it is nothing more than the common sanding block. We've all used them, whether it be a scrap of sandpaper wrapped around a chunk of wood or one of the more sophisticated commercial types available at the hobby shop. However, neither of these is entirely adequate for accurately squaring edges, etc., for joints. For this, you need one like that shown in Fig. 14. It must be cut, on a circular saw, so that *all four* sides are precisely square with each other or the block is useless. While you're at it, cut enough for several blocks so you can have more than one grade of sandpaper handy for use. The dimensions given are for the size block I

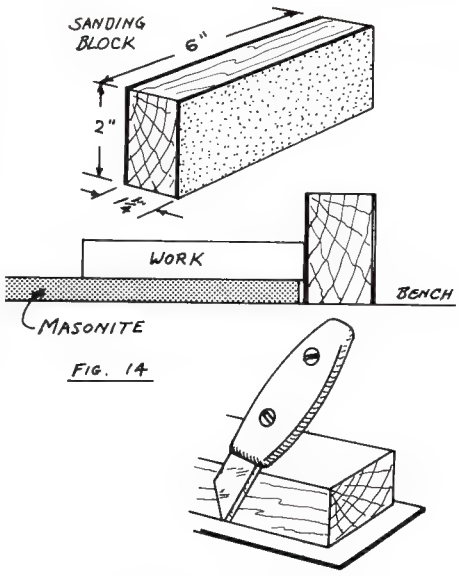

FIG. 14

favor but are by no means critical. However, I do suggest that the base be not less than 1 inch for stability. Wider is better, of course. I face the blocks with open-coat garnet paper as this cuts faster on both wood and styrene. For most purposes, 100 grit (medium coarse) is best. For a finer finish, use 220 grit. If you want a very coarse paper, try 60 grit. Spray the back of the paper with 3M spray adhesive, set the block on top, and place under a weight for a time. Then trim the paper close to the block, as shown. Since garnet paper ruins the cutting edge of the knife very quickly, I suggest using one of the heavy duty "utility" knives, with replacable blades, such as the type shown. They can be resharpened once, or twice, if you wish, before discarding them. Repeat the process on the opposite side of the block. Be sure to trim the paper as closely as possible so the block will sit flat on the bench and be sure the paper is bonded smoothly on the sides. Support the work on a piece of masonite, or other flat material, as shown. It only has to be thick enough to raise the work slightly above the bench so the block covers the entire surface to be sanded. In fact, pieces of varying thickness can be utilized to gain full usage of the cutting surface.

If you use the block for styrene, it will lose it's cutting action rapidly, especially on long, thin edges. Don't bear down too hard. Let the paper cut rather than wear the material off. Replace the paper when it no longer cuts with reasonable speed.

You will find these blocks extremely good for making square, close-fitting joints in both wood and styrene as well as for turning out accurately square parts for all sorts of patterns, model construction, etc. I wouldn't be without them.

Try some of these jigs in your future modeling. I'm sure you'll find them as helpful as I have over the years. So long, 'til next time.

AL —o

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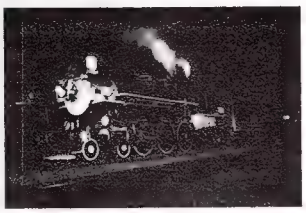

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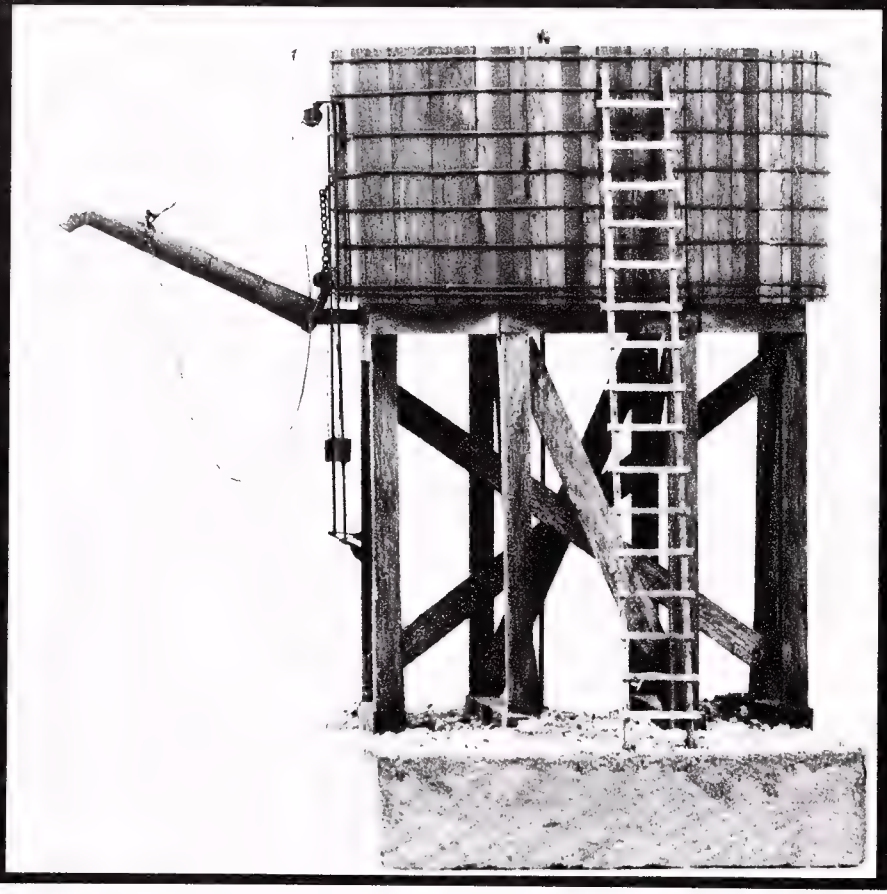
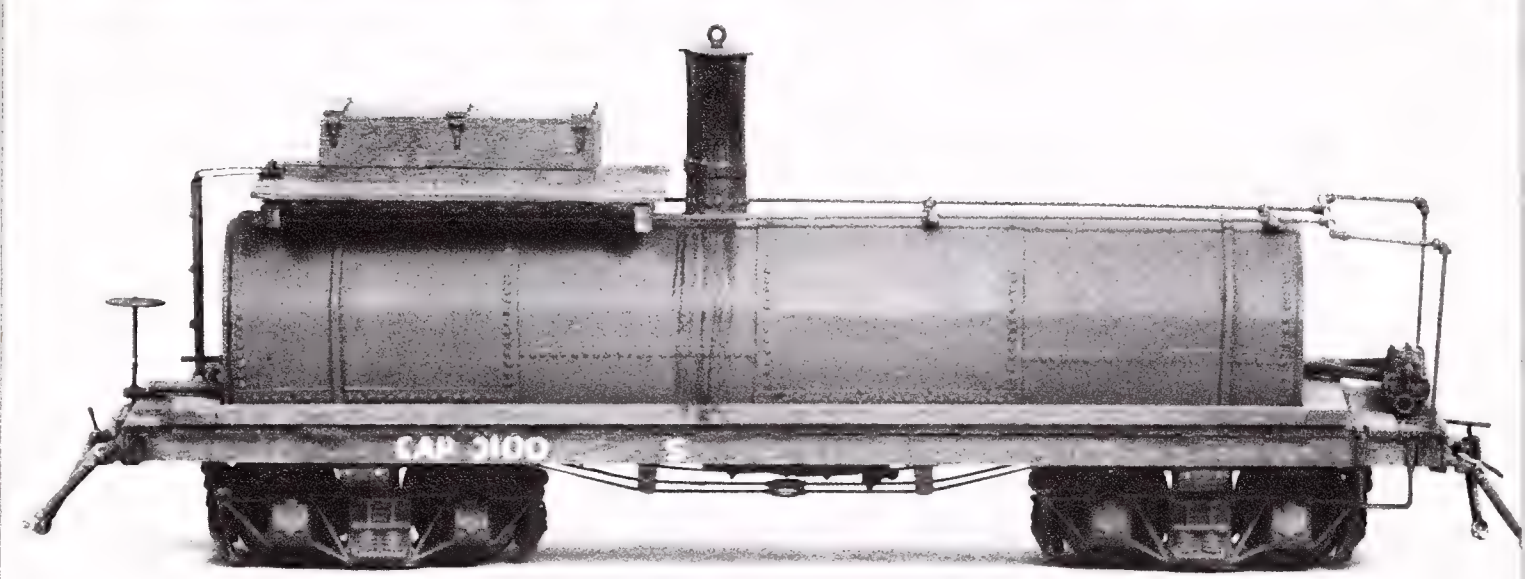
GAZETTE GALLERY

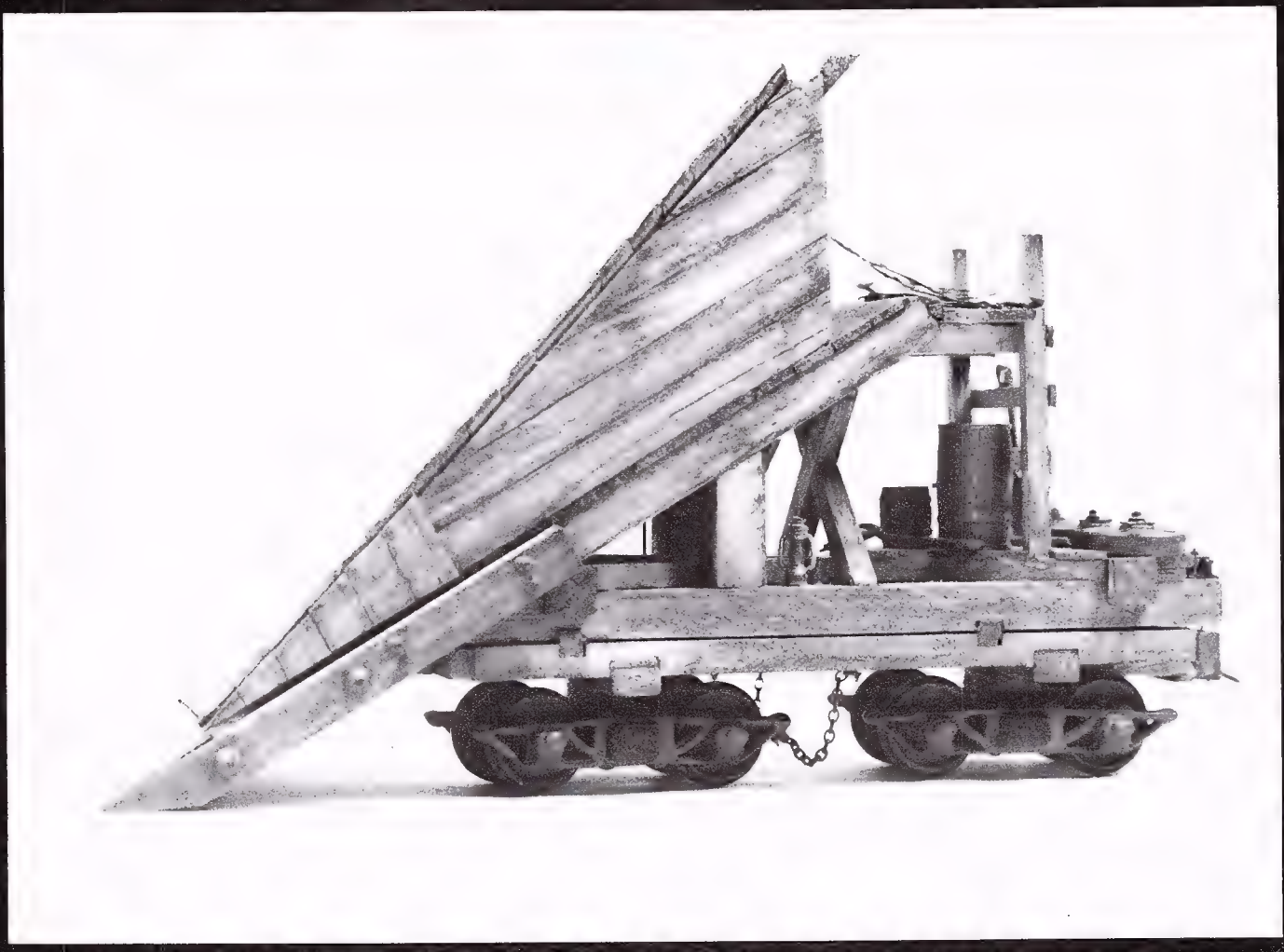
Edited by Gene Deimling

Bill Hopkins has been busy building HOn3 scale models of West Side Lumber Company equipment. The first model shown is the Camp Reynolds water tank. Bill scratch built this fine model from Simpson plans and Western Logging Historical Society data. The finish is a combination of dyes and chalks. *Photo by Phil Sweet.*

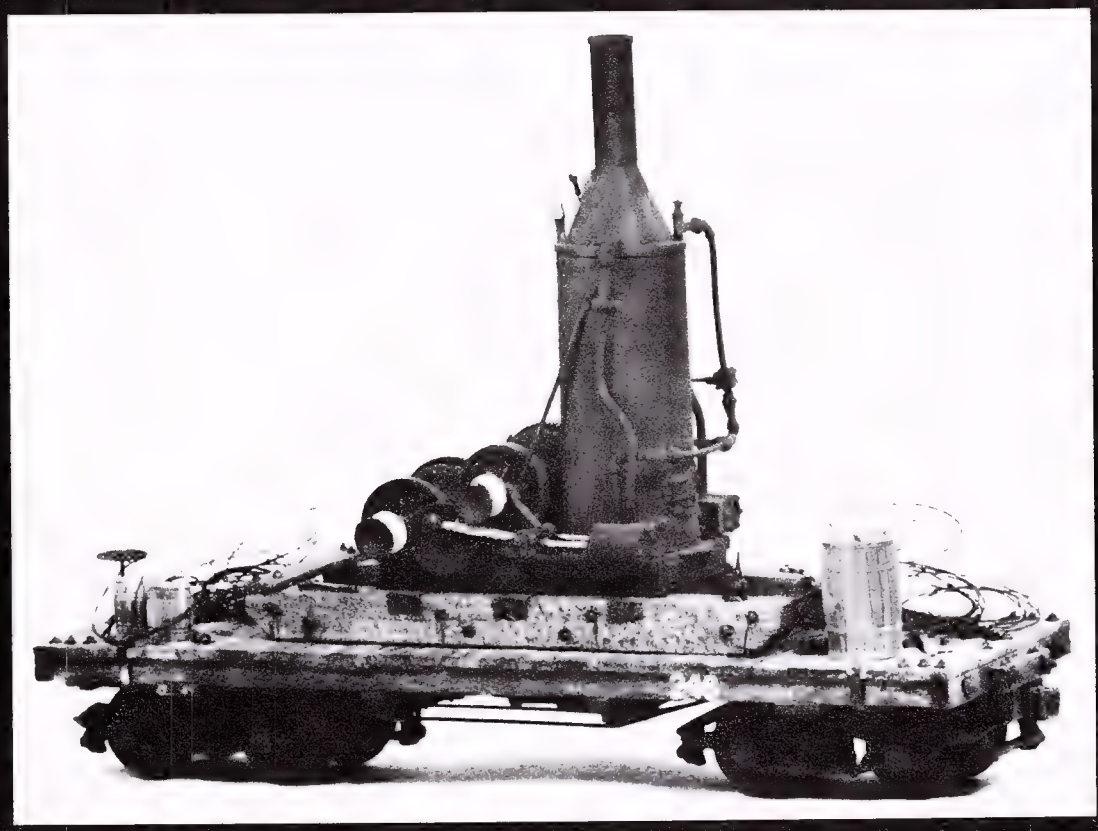


A Rio Grande Models West Side tank car kit was used by Bill Hopkins to create this fine replica in HOn3. Bill modified the plumbing on the steam pump as described in the May 1977 **GAZETTE** in the "Narrow Gauge Scene". *Photo by Phil Sweet.*





A Simpson "Powder House" snowplow from the Hopkins' HOn3 West Side exhibit. A pair of Carter trucks were modified with solid bolsters. As with all the models shown here the finish is a combination of dyes and pastel chalks. *Photo by Phil Sweet.*



A flatcar from Bill Hopkin's HOn3 West Side exhibit loaded with a Cannon (Hetch Hetchy Models) donkey. *Photo by Phil Sweet.*

A 1915 view of the Consolidated Lumber operations at Elk, Washington. The log loader is an American Hoist and Derrick Model D. The worker standing on top of the loaded Russel #2 log car had a dangerous job to say the least. *Photo, collection of John Cummings.*

Ah, Placerville, California in the day of steam! Not too far away was Mich Cal's 3 foot gauge big lumber operation at Camino. Placerville was and is one of those out-of-the-way places on the giant Southern Pacific. Ted Wurm was on the scene covering the arrival of an excursion train from Sacramento (for a future issue of the **GAZETTE**?). Ted submitted this photo as proof of the existence of a "caboose round house". My guess is that this unusual one stall round house was the only cool spot to park the caboose on this hot August day in 1940. *Photo by Ted Wurm.*

Another "Dinky" en route to pit #1 project east of Sacramento River. *Photo, collection of Ted Wurm.*

Narrow gauge grab bag at San Luis Obispo in January 1939. Frames are from locos 108 and 109. *Photo, collection of Ted Wurm.*

Gila Pacific Yard Office & Bunkhouse

by Ron Tarjany
Photos by the author

The Gila's Yard Office and Bunkhouse project was probably one of the longest-under-construction structures on my layout. Years ago I had built a coaling tower & sandbin and "temporarily" placed the sandbin to cover a vacant spot in the yard. Then procrastination set in.

Finally I began a free-lance design yard office-bunkhouse to fit the sand house spot. A lean-to was added to the rear to add more interest to its appearance and to give me an excuse to add more "clutter" detail to the yard.

The model was built by board-by-board using board and batten construction. My model was built in HO scale, but it could be built in any scale. I have added prototype dimensions to the drawing of the model and the materials list to make it easier to convert to other scales. The model is one of those small, but vital structures and I think you will find that it makes a good addition to the railroad scene.

Construction starts with the wall framing, using the 2 x 4 inch boards. Prepare the wood first by the prestaining method. I apply a generous amount of Diosol to a soft cloth, followed by a dab of Floquil foundation-color paint. Pull the stripwood (one at a time) through this spot on the cloth several times to rub the stain into the grain. Turn the pieces of wood to get all four faces colored.

Continue staining, doing the 2 x 12 inch siding pieces, the 4 x 4 inch and 4 x 6 inch pieces. Pre-stain the siding also using the standard wiping technique, one side only. I used Floquil's Tuscan Red, without thining it. Pre-stain the 1 x 2 inch wood for the battens and the 1 x 6 inch and 1 x 8 inch wood trim pieces in this color also.

Cut and cement the siding to the frames. Apply the battens with many of them split, broken or missing. You may want to add the 1 x 8 inch trim along the bottom of the structure first and then butt the battens to this piece. Build up the floor framing and cement the stripwood decking into place. Add nail holes in several boards and then stain with Floquil Walnut stain.

Spray paint the door and window castings an off-white color. Glaze the windows. Install the castings into place in the walls.

Cement the back and one sidewall to the floor. You may add whatever interior detail you wish at this time. I scratchbuilt the two bunkbeds, and the other details are commercial castings.

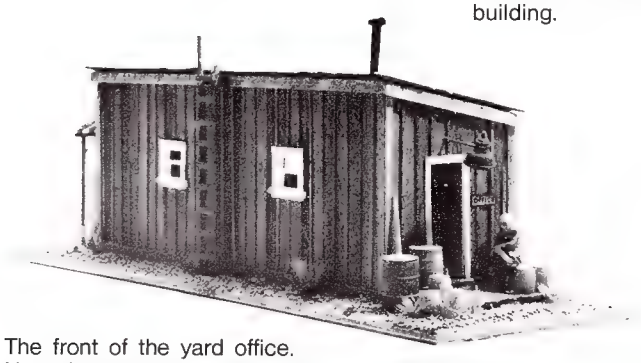
Roof covering is made from facial tissue to resemble tar paper. Cut the tissue into 3 foot wide strips, and "paint it on" with Floquil Grimy Black and thinner, rather than glue. The paint acts as glue and looks better. After the roof dries outline the tarpaper strips, so that it looks like tar is oozing from underneath.

Position the smokestack over the stove location and add the bracing wires.

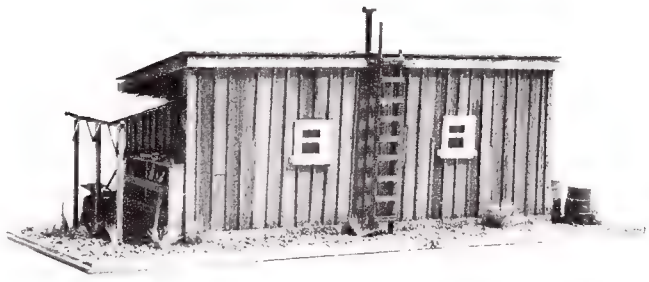
Weather the model by misting a mixture of earth, mud and grime paints, using plenty of thinner. Final weathering is done by using artist chalk dust in colors of soot, dust, rust, etc.

I hope this will encourage the wary model railroader to try his hand at a board-by-board building project. As you can see, this small structure can add a lot to the layout scene and can be custom fitted and finished to suit your railroad operation.

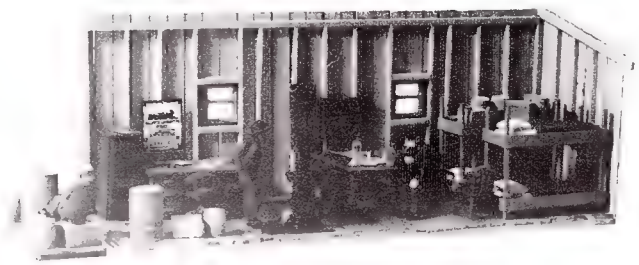
These parts bins were a common sight around railroad yards. The lean to with the tin roof adds to the weathered appearance of the building.



The front of the yard office. Note the way the building is mounted on a small base for easier handling and protection.



This view shows the detail at the end of the building. The ladder adds a nice touch to what is otherwise a plain side.



This interior view shows the amount of detail that can be incorporated into a model of this size.

Materials List

1 x 2 inch Battens, Lean-to Braces
1 x 6 inch Corner Trim
1 x 8 inch Bottom Trim
2 x 4 inch Framing, Lean-to Rafters
2 x 6 inch Porch Flooring
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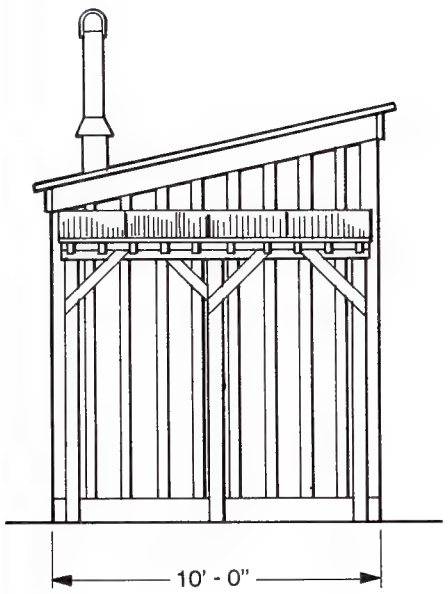
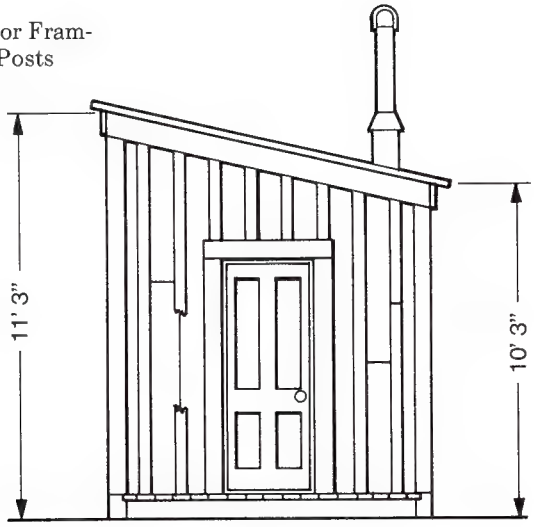
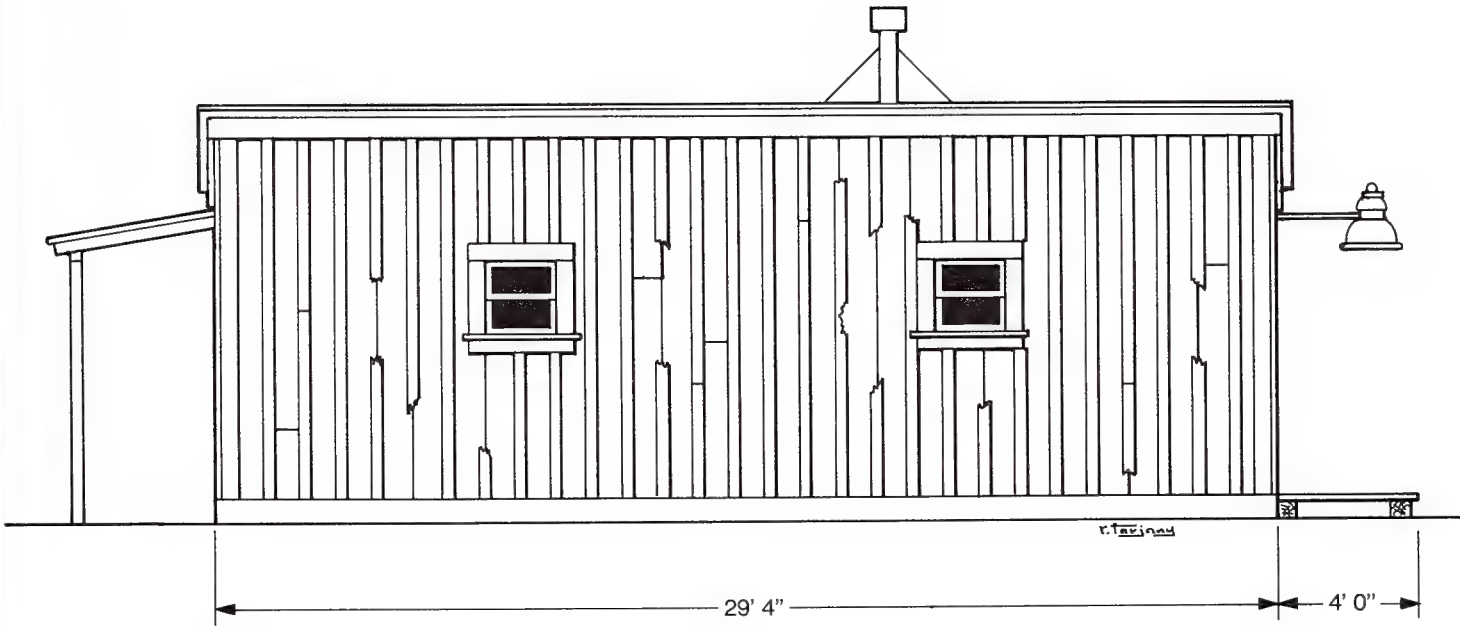
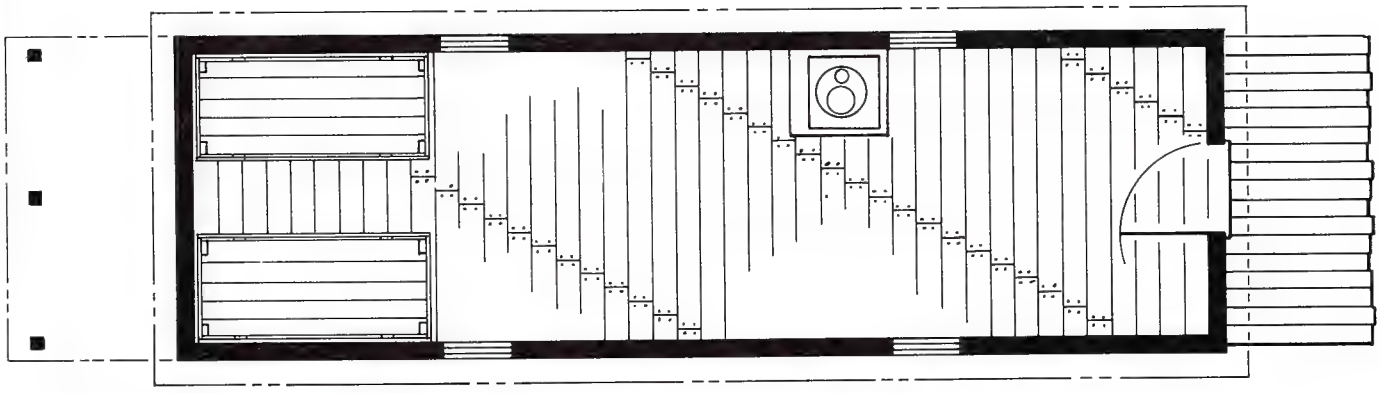




SCALE: 3/16" = 1' 0"





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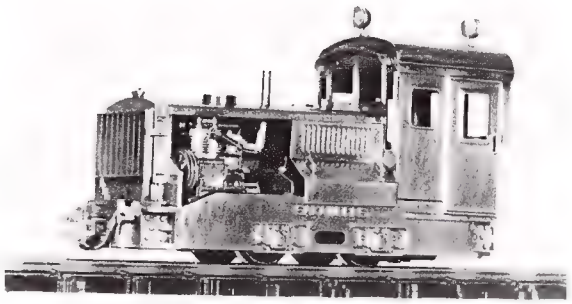

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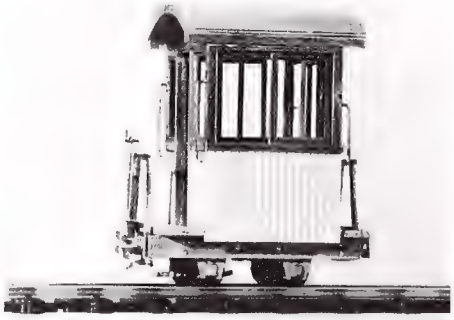

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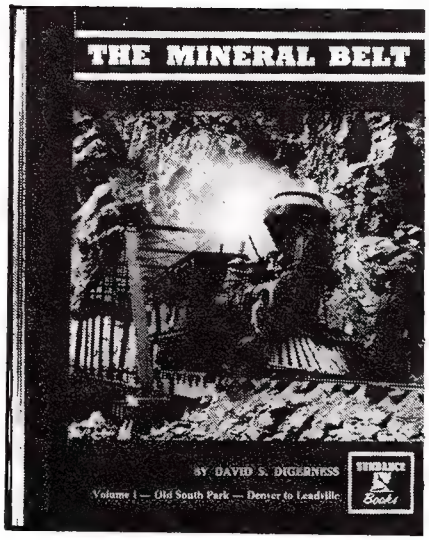

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Book Reviews

Switzerland Trail of America (2nd Edition)
by Forrest Crozen
Published by Pruett Publishing Co. and Robinson Press, Inc.
1137 Riverside
Fort Collins, Colorado 80521

There are a few books which due to their excellence and rarity quickly become collector's items often commanding premium prices. One of these, *Switzerland Trail,* is a comprehensive work about one of the more obscure yet colorful narrow gauge railroads of Colorado – the Colorado and Northwestern, later the Denver, Boulder and Western. First published in 1963, it quickly became a collectors item, and is now offered in a slightly enlarged second edition.

This book details the history of the various lines operating westward from Boulder to serve the mining districts located high above in the Rockies. So scenic was the route of the Denver, Boulder and Western that it quickly became known as "The Switzerland Trail of America." In spite of the mining activity and scenic beauty offered, the road folded shortly after World War I.

Railfans and modelers will find a wealth of information in the 400 pages, 350 photographs, timetables, plans, maps, and passes. The text is extremely readable covering all aspects of the railroad in great detail. Many of the photographs are reproduced one per page (8½ by 11 inches) and the tourist brochures and other documentary material enhance an understanding of this road. Pocket maps of the railroad and major yards help put everything in place. For the modeler, plans of some of the engines and rolling stock are reproduced. And the C&N/DB&W operated some pretty interesting equipment, including a Climax, Shay, and four of the largest inside-frame consolidations ever used on a narrow gauge road. Three of these consolidations went on to fame as C&S numbers 74, 75, and 76. Of course, 74 served on the RGS as well, and is preserved in Boulder.

Beyond the historical text, there are numerous first-hand accounts of operations on the railroad by former employees and an added chapter (for this edition) about one engineer. Four superb full-color paintings by Fogg and Ward breathe life into the railroad.

All in all, this is a first-rate work, excellently re-published, and, at $37.50, is available at a fraction of the collector's price. You won't regret adding this volume to your library. *Charlie Getz.*

The Country Railroad Station in America
by H. Roger Grant & Charles W. Bohi
Pruett Publishing Co.
3235 Prairie Ave.
Boulder, CO 80301

One hundred and eighty-four pages of small railroad stations presented by two dedicated station watchers describes this new book from Pruett. The authors have divided their subject into two parts. In Part One, the authors discuss the railroad depot as a community force, the hub of community life, and the quest for better depots. However, the bulk of the book is found in Part Two. The evolution of the American country railroad station is covered in five chapters. First mentioned is the standard combination station. Next, the combination stations east of the Mississippi River are described. Then the combination stations west of the Mississippi River are covered. Chapter four describes stations found in Canada and the last chapter tells about the future of the country depot. The text contains many photographs and an index. Many prototype floor plans are provided and a wealth of interior information can be gathered from these drawings. The drawings are reduced from original plans and were not especially drawn for the book. There are also several side and end elevation drawings in small scales of many of the stations discussed. All kinds of stations are shown in the photographs from a small shack on a flat car to large stone structures. The book will be very helpful for anyone who wants to design a station or select an interesting prototype for a model. The rail historian should also find this work of value. The book sells for $22.50. *Bob Brown*

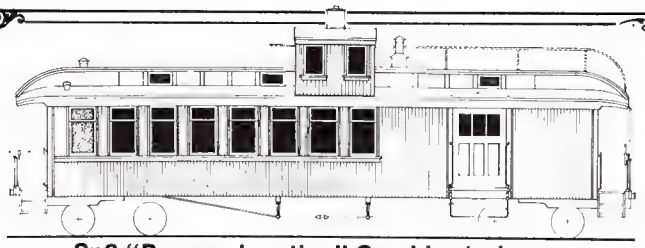
Building & Operating Model Railroads
Edited by Donald Heimburger
Heimburger House Publishing Co.
310 Lathrop Ave.
River Forest, IL 60305

Don Heimburger edits and publishes the **S GAUGIAN** magazine. He has gathered together descriptions of 18 S gauge layouts in a new 120 page soft bound book. The book is divided into six chapters, which cover detailing, large layouts, operation, tinplate layouts, club and Christmas layouts and a detailed discussion of one particular model railroad called the Denver & Western Railway. This book is well done graphically and should appeal to those of you who are interested in S scale or large layout design. The price is $9.95 plus 65¢ for postage and handling. *Bob Brown*

Creative Layout Design
Edited by Mike Schafer
Kalmbach Books
1027 North Seventh St.,
Milwaukee, WI 53233

The full title of this book is *The Wit, Whim, and (best of all) Wisdom of John Armstrong on Creative Layout Design.* Anyone who has read the **MODEL RAILROADER** knows of John Armstrong. He has been designing layouts for over 25 years. John has been responsible for many innovations in layout planning. This book is divided into six sections. The first is on pike location, then comes scale and gauge which includes a long discussion of narrow gauge plus a full layout for the Sandy River and Rangeley Lakes. Then come scenic realism, modeling prototypes, pikes with a purpose and layouts using a unifying theme. The book is 124 pages long and is well illustrated with photos and drawings. I was most impressed with the way the book takes the reader through the stages of creating a layout. There is a constant emphasis on careful decision making and sticking to decisions once made. As the book says, you must base your decisions on a thorough understanding of your interests and space availability. Unless you are building railroad models which will be displayed on shelves you will have to stick to one scenario or you will never accomplish anything. The book is designed for the modeler who wants to create a model railroad as contrasted to the modeler who wants to create railroad models. There *is* a difference.

I found the book very useful, particularly its section on layout lighting and its very interesting layout designs. One item of special note was a vertical turnout. This device is used to switch an entire O scale train from one level of a layout to another — a great idea where space is sparse. I urge those of you considering building a model railroad of any gauge or concept to get this one. It sells for $11.95 in a soft cover. *Bob Brown*



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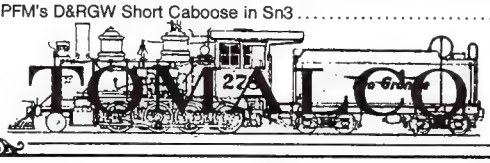

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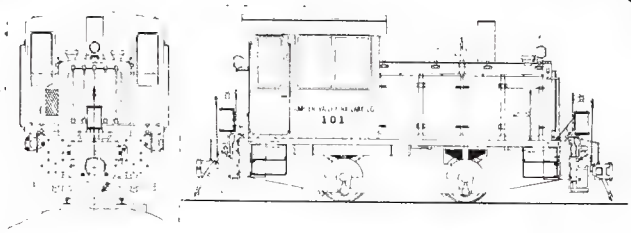

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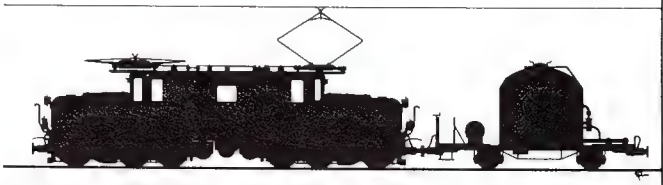

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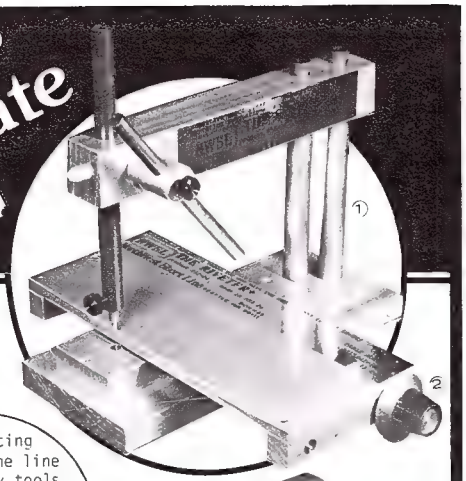

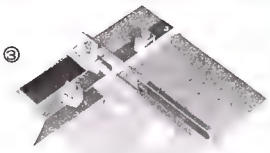

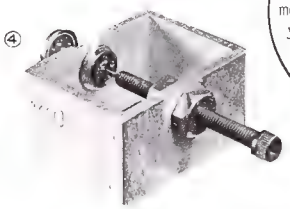

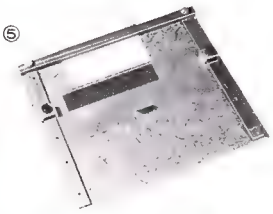

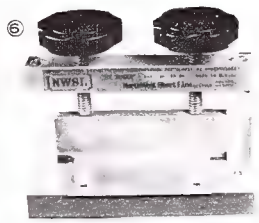

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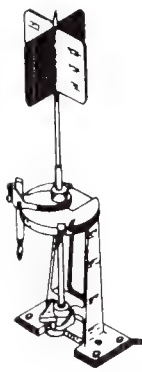

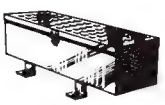

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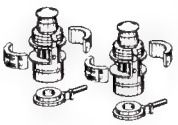

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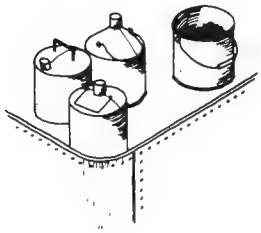

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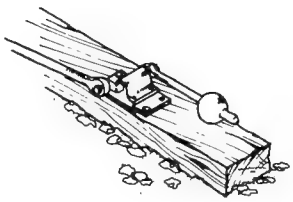

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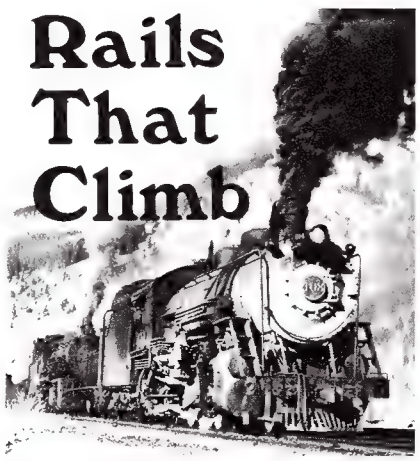

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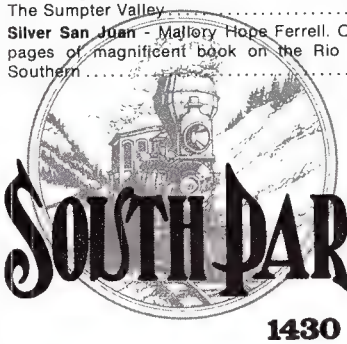

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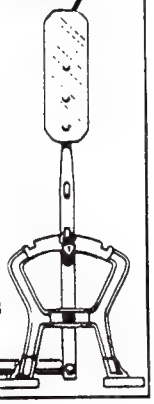

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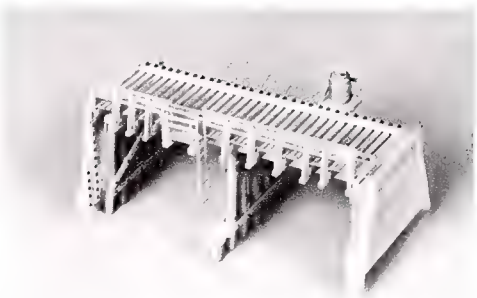

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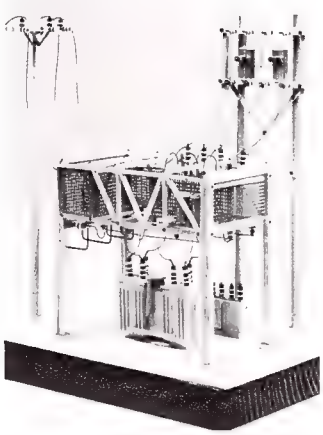

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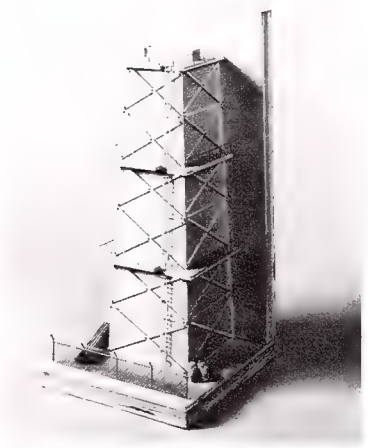

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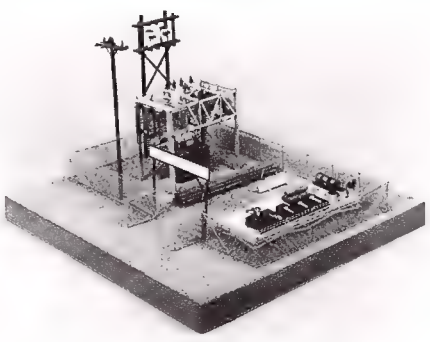

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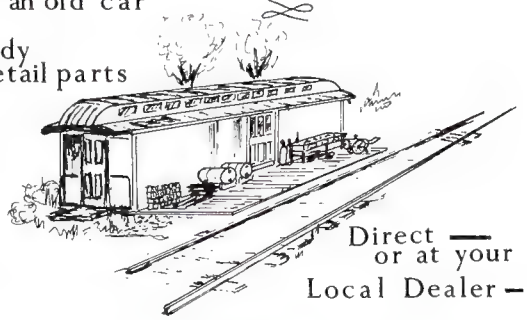

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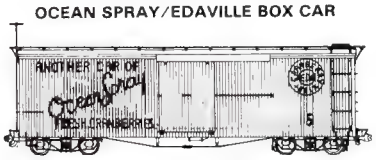

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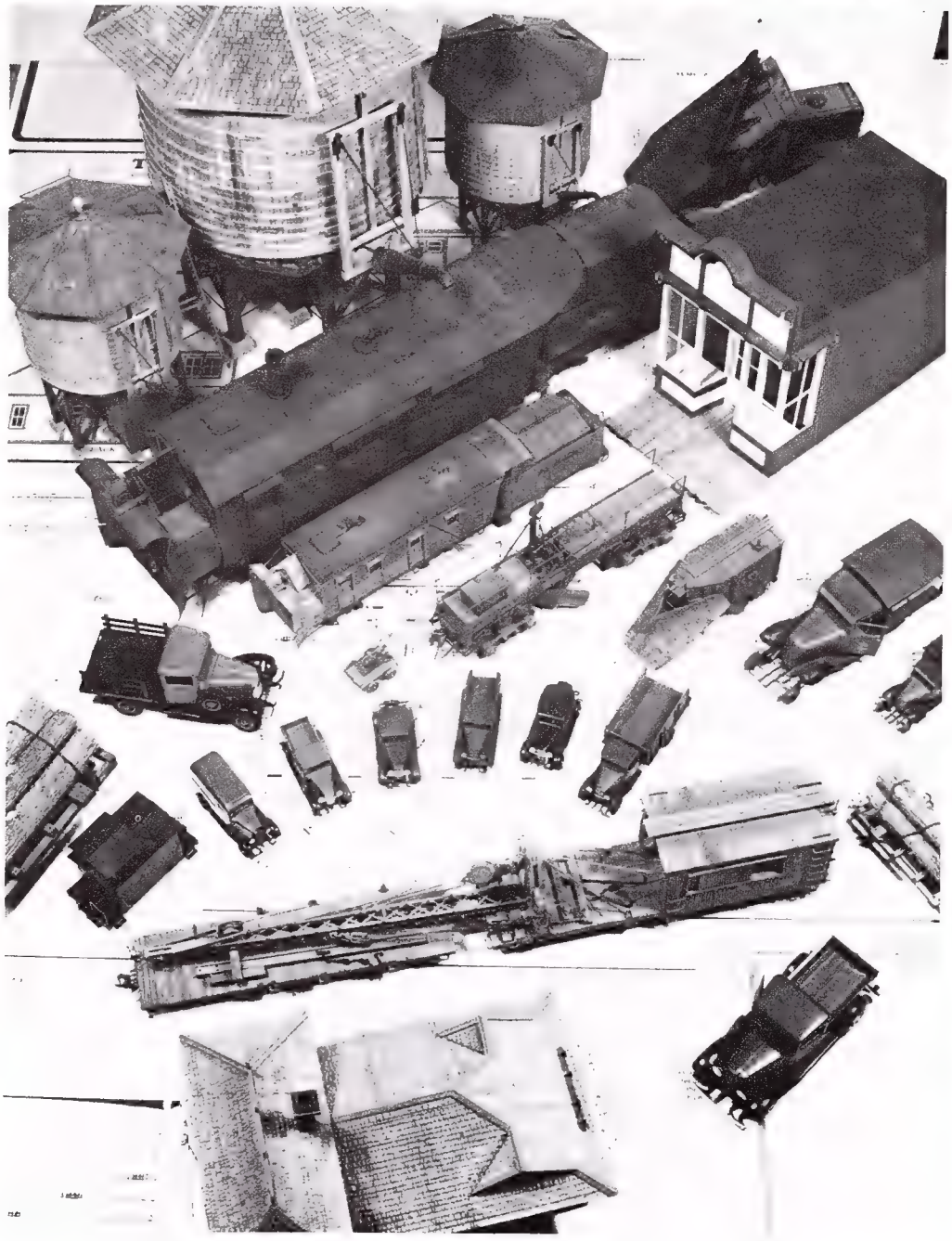

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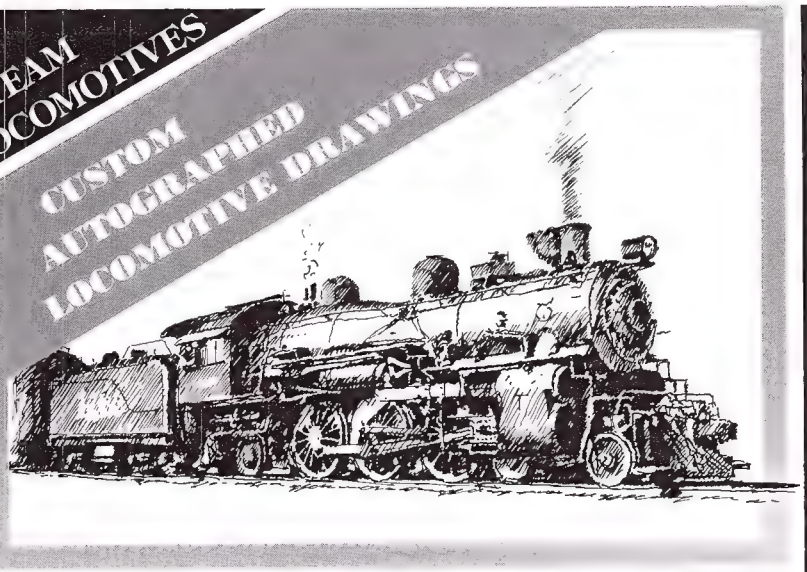

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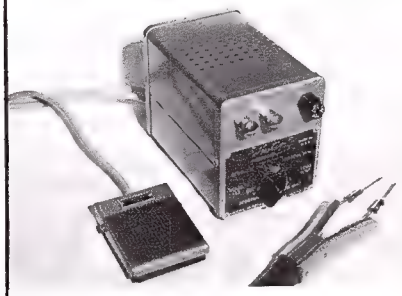

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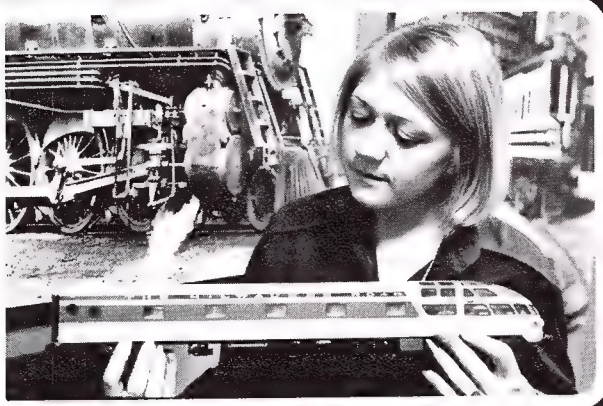

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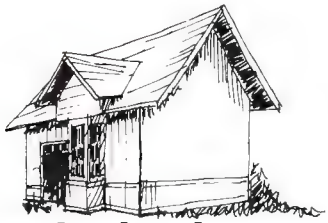

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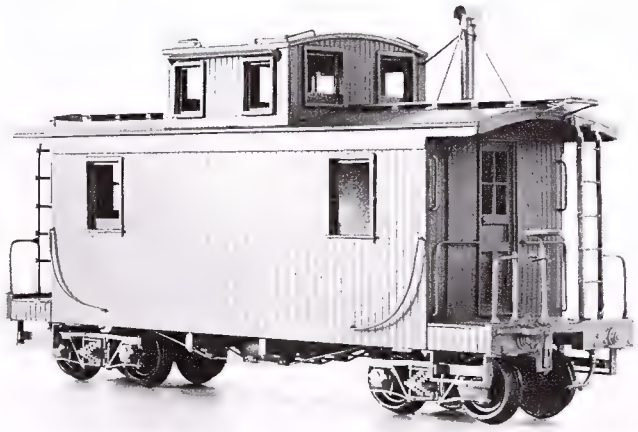

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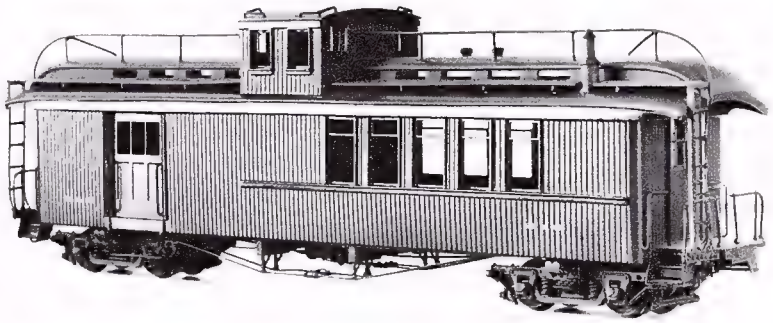

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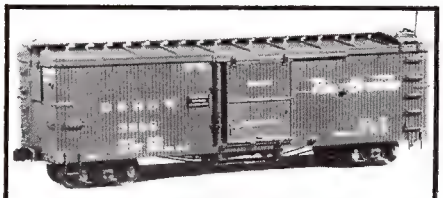

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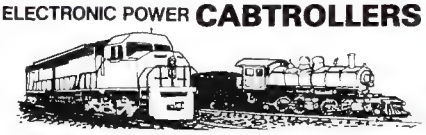

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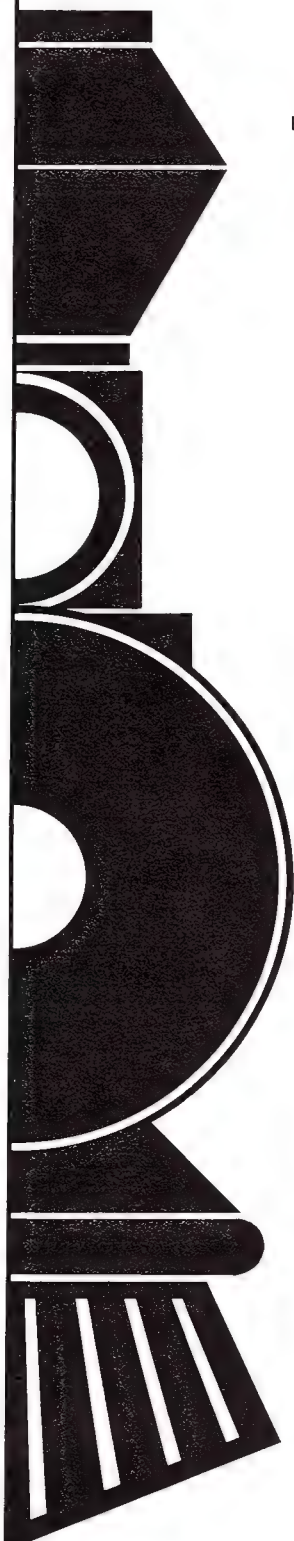

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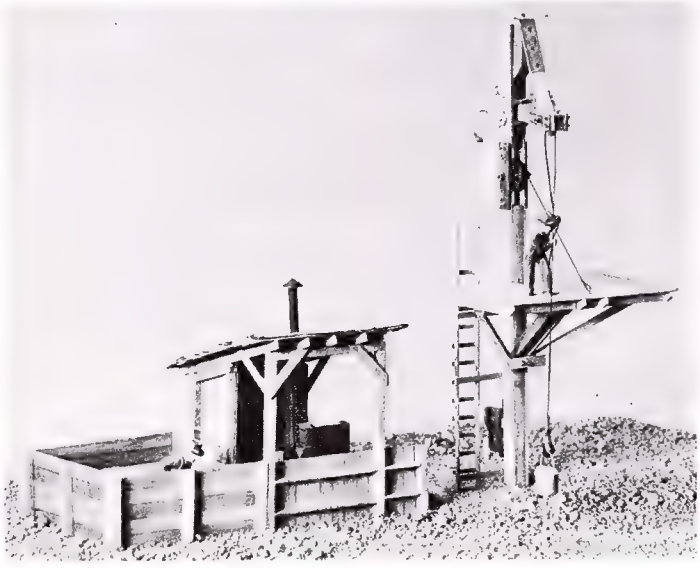

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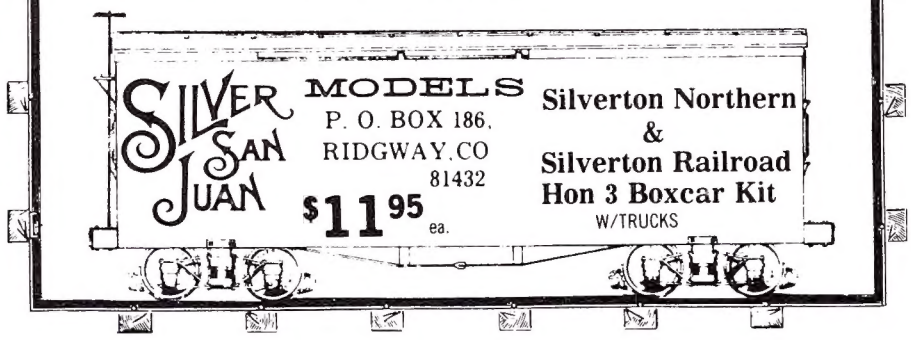

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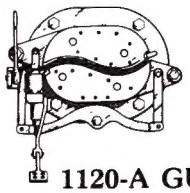

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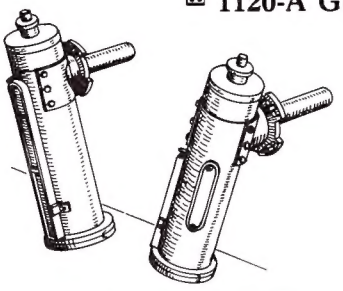

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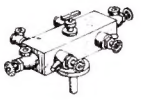

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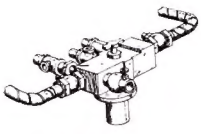

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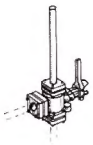

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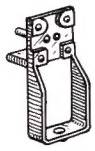

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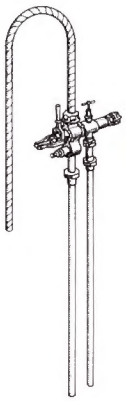

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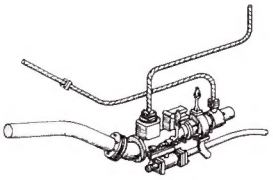

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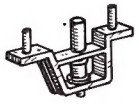

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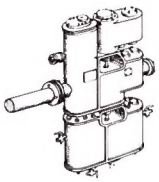

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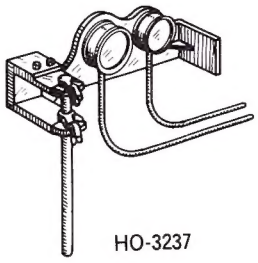

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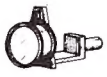

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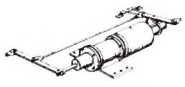

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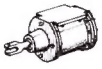

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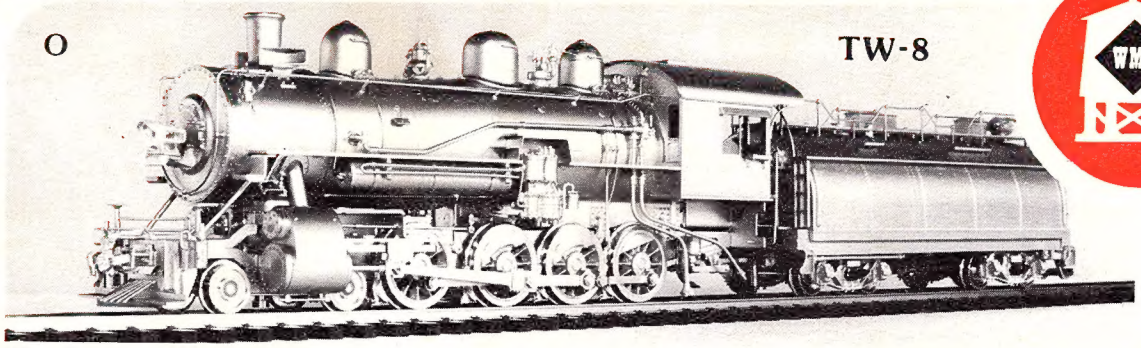

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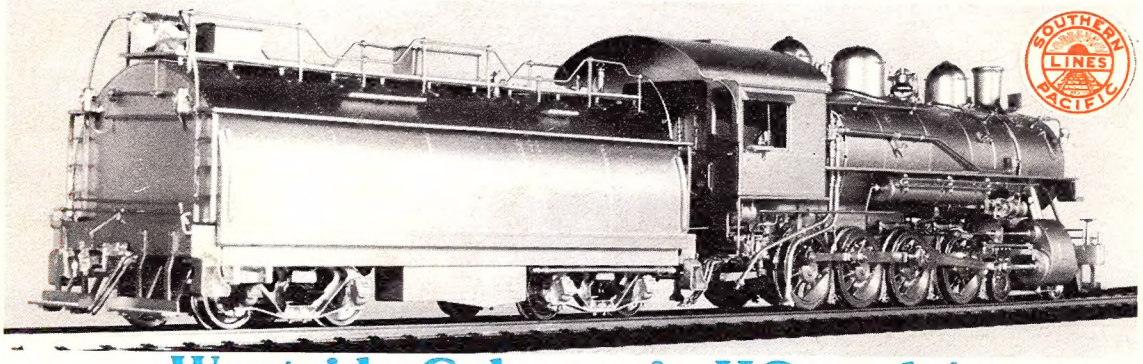

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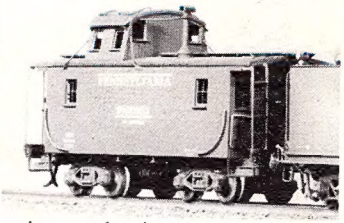

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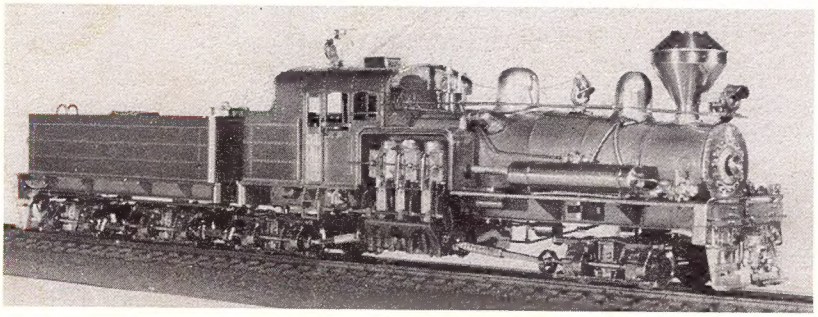

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